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Aquabusiness in South Carolina

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The University of South Carolina

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Why Aquaculture-Mariculture? An Introduction

What's a clean, competitive, labor-intensive industry that will locate in areas where other industries are difficult to place? The answer is aquaculture-mariculture, or aquabusiness. But this industry won't develop on its own.

F. Jerry Ingram

WHY are we publishing a special issue on aquaculture-mariculture — that is, fish and crustacean farming? First of all, because aquaculture-mariculture, or aquabusiness, is an industry with a potentially strong economic future. A producer with an efficient production system operating in a market with virtually unlimited demand is practically assured of profits. A New York City research firm, FIND/SVP, projects that aquaculture will grow from a $150 million business nationally in 1981 to one with sales of $1.65 billion by the end of the century.

Second, we're taking an in-depth look at aquabusiness because South Carolinians are concerned about the quality of the state's environment, and aquaculture-mariculture is one industry that can actually improve air and water quality.

Third, aquabusiness can employ the low-skilled or unskilled labor force living outside the cities, thereby helping revitalize our rural areas. This is one of the most difficult economic development tasks facing the state (and the South, for that matter). Studies by Dr. Richard W. Ellson of The University of South Carolina's College of Business Administration, in fact, indicate that aquacultural-maricultural ventures can create 4 indirect jobs for every 1 direct job. That's significantly higher than the 3-to-1 job ratio of traditional "smokestack" industries.

F. Jerry Ingram is Associate Professor of Real Estate in the College of Business Administration at The University of South Carolina. He directed the development of the computer models for South Carolina aquacultural and maricultural projects, and serves as USC Co-Director for the Georgetown Project.

Industry Clean, Competitive

Aquaculture-mariculture is a clean, competitive, labor intensive industry that can, and will, locate in areas where other industries are difficult to place. Moreover, it can only grow in size and importance as we move into the 21st century. But this industry in South Carolina will not develop on its own. Although Louisiana and Texas have a thriving crawfish industry, and Mississippi, Alabama, and Arkansas are successful producers of catfish, attempts to get aquaculture-mariculture off the ground in South Carolina in the 1960's and 1970's were abortive.

Aquaculture, or fresh water fish and crustacean farming, is a cost-effective method of producing protein in a world in which demand for low-cost protein is growing much more rapidly than supply. Mariculture (in which salt water animals are farmed intensively) is even more promising than aquaculture, in a market potential sense, because the wild-caught supply of marine fish and crustaceans is stable or diminishing. Commercial maricultural operations, particularly involving high-priced seafoods, already are generating substantial profits in several markets around the world. Yet, mariculture is less technically developed than aquaculture, and consequently, more risky.

Of course, aquaculture has its risks, too. Localized factors such as soil acidity, water salinity, transportation infrastructure, management, and many others determine the success or failure of individual aquacultural projects. In short, the industry may come close to being a sure thing, but any venture can fail if not properly designed and carefully managed.

In 1981, The University of South Carolina established a team of experts from a variety of disciplines to assist in fostering an aquacultural-maricultural industry in the Palmetto State. Initially, that group's efforts were concentrated in Georgetown

"A New York City research firm projects that aquaculture will grow from a $150 million business nationally in 1981 to one with sales of $1.65 billion by the end of the century."

County, but the program has since been extended statewide and integrated with the activities of various state and local government agencies.

Help Available

HELP available from USC ranges from market analyses and product feasibility studies for interested entrepreneurs to detailed technical expertise on such matters as equipment, water, and fish management.

We hope this issue of the *Business & Economic Review* will help to bring about wider public understanding of, and interest in, this effort, so that the many pieces necessary for a viable aquacultural-maricultural industry can be brought together in South Carolina. Jesse Chappell and A. Keith Taniguchi, aquacultural and maricultural experts at the Belle W. Baruch Institute for Marine Biology and Coastal Research in Georgetown, kick off the issue by telling us what aquaculture is, how it got started, and what the industry's feasibility is in South Carolina. James P. Gaines and Jack M. Kendree, Jr. of USC's College of Business Administration and I present a methodology for assessing the economic feasibility of aquacultural-maricultural ventures at specific proposed sites around the state. H. Wayne Beam, Director of the South Carolina Coastal Council, reviews the existing legal and regulatory constraints that could hamper the industry's growth. Mark E. Tompkins of USC's Department of Government and International Studies delves further into the public policy aspects of fostering the industry in South Carolina. Jack M. Kendree, Sr., Executive Director of the Georgetown County Development Commission, tells how his county got into the aquacultural business. Jan Collins Stucker, Editor of this publication, reports on how two South Carolina entrepreneurs got started in aquabusiness. Finally, we include some excerpts from a national study on aquabusiness.

Aquaculture-mariculture is, without a doubt, an industry with a potentially great future. Whether that potential is realized for the benefit of South Carolina will depend on the cooperative efforts of a variety of public agencies and the business acumen of the private sector. □

Aquaculture: Prospects and Constraints in South Carolina

It's an ancient industry — known to the Chinese and Japanese centuries ago. And it has the potential of becoming a major industry in South Carolina.

A. Keith Taniguchi and Jesse A. Chappell

Aq ua-cul-ture, *n.* The controlled cultivation and production of fish and crustaceans.

Aquaculture, an industry that could become an important part of South Carolina's economy, is as old as recorded human history. More than 2,000 years before the birth of Christ, the Chinese and Japanese were raising fish and oysters; their aquacultural methods have survived to the present with few changes.

In the recent past, scientific and technological refinements have made aquaculture a more sophisticated art in the industrialized nations. But interestingly enough, aquaculture traditionally has had more success in less developed countries in tropical and subtropical areas. Warmer climates at lower altitudes have longer growing seasons, for one reason, and this positively affects the productivity of freshwater and saltwater environments. Economic factors, such as the reduced cost of manual labor, and geographical factors, such as the abundance of water and the type of terrain or coastline suitable for aquaculture, also tend to be readily available in the less developed nations.

Higher costs for fuel, vessel construction, and labor since the 1970's, however, have raised the price of commercially caught wild fish to the point that Western, industrialized countries today are considering aquaculture as an economically attractive alternative.

A. Keith Taniguchi is a Research Associate at the Belle W. Baruch Institute for Marine Biology and Coastal Research in Georgetown, and Project Science Manager for The South Carolina Aquaculture-Mariculture Program International (S.C.A.M.P.I.) project team at The University of South Carolina. He has commercial fisheries experience and has served as a consultant to research laboratories and private aquacultural firms. **Jesse A. Chappell** is a Research Associate at the Baruch Institute and Director of USC's S.C.A.M.P.I. project team. He is a former Production Manager for Farm Fresh Catfish Co. in Montrose, Arkansas, the country's largest producer of cultured channel catfish.

Food for the Hungry

There is another reason, too, why aquaculture is being reexamined by many countries: it can help feed the growing world population. It is estimated that the number of people in the world will increase from 4 billion in 1975 to 6 billion by the year 2,000, at the present predicted rate of human growth. Even though world food production is projected to increase by 90 percent between 1970 and the year 2,000, this will amount to a global per capita increase of less than 15 percent — not enough to feed the yet unborn.

Most of this increased food production will be in the form of edible grains. The production of more animal protein is needed, too, but the once abundant source of that animal protein — fish — is not expected to increase substantially. The world's oceans have produced about 70 million metric tons of fish annually since the mid-1970's; that annual harvest is expected to increase only slightly by the year 2,000.

If we are to increase our production of fish products, therefore, it appears we must turn to the controlled production of aquatic animals and plants.

There is no question that aquaculture has the potential for increasing the traditional freshwater and marine fish harvest. The 1976 Food and Aquaculture Organization (FAO) of the United Nation's World Conference on Aquaculture concluded that a 5-to-10-fold increase in aquacultured fish production would be possible by the year 2,000.

Between 1966 and 1976, annual world aquacultural production increased 20 percent, from 5 million to 6 million metric tons. This tonnage may double by 1985, and could range from 30 million to 60 million metric tons annually by the year 2,000. The FAO has projected that by the year 2,000, aquaculture must provide 40 million metric tons per year of fish and shellfish. In the opinion of many

"More than 2,000 years before the birth of Christ, the Chinese and Japanese were raising fish and oysters; their aquacultural methods have survived to the present with few changes."

experts who have surveyed the numerous advances in aquacultural technology during the past decade, this projected requirement can be met. Therefore, the governments of many industrialized nations now support the development of aquacultural industries.

But what about South Carolina? What are the prospects here for expanding the aquacultural industry?

A Hidden Factor

In our view, aquaculture today already is a hidden factor in the state's economy, with significant economic profits being made by businesses and individuals participating in our state's sport fisheries industry. Unfortunately, the economic contribution made by state and federal aquacultural hatcheries in South Carolina (which produce striped bass, hybrid striped bass, largemouth bass, bream, crappie, catfish, and trout) is not currently measurable, because the state has no comprehensive economic report available describing its net worth.

Nevertheless, aquaculture does show great promise in South Carolina as an environmentally sound alternative that will create new jobs and bolster our economic growth. There will, of course, continue to be opportunities for growth in traditional agriculture here. But in recent years, many farmers have had difficulties continuing to farm profitably. A carefully considered change to freshwater aquaculture could allow farmers to raise an aquatic product on farm lands with suitable soils and adequate water supplies.

Many of South Carolina's natural resources are well suited for various kinds of aquacultural enterprises. Some of our soils are high in clay content and provide an excellent substrate on which ponds can be built for aquacultural use. We also have an abundant supply of high quality water from rivers, lakes, and aquifers available for aquaculture. All that remains is for us to determine how we can utilize, manage, and conserve these resources for future agricultural and aquacultural food production.

Aquacultural Prospects

THERE are many different types of aquaculture that could be successful in South Carolina. **Channel catfish** is one.

The production and sale of channel catfish already has been successful in Alabama, Mississippi, Arkansas, and Louisiana. The combined production of those states currently exceeds 100,000 surface acres, and sales of catfish exceed $100 million annually. The sales and expenditures of secondary and tertiary support businesses, although unmeasured, probably are three times as large as the primary business — and the volume of the industry is expanding at a rate of 30 to 35 percent per year. In these times of economic uncertainties, few businesses can boast of similar growth rates.

Soil, water quality, and climate are as suitable in South Carolina for channel catfish aquaculture as in these other mid-South states. The technology for catfish production, harvesting, processing, and marketing likewise is available here.

What few constraints exist on catfish business development seem to be mainly in the areas of education and financing. Many landowners are unaware of what they might be able to achieve with commercial catfish farming. Others, who have both an interest and the necessary information, are limited financially, because their bankers are less well informed on the subject and usually discourage this type of investment initiative.

Legal constraints on land, water, and wetlands usage, which sometimes raise problems in the crawfish and shrimp aquaculture business in South Carolina, are not as much of a problem in the catfish business, since catfish usually are grown in farm ponds or in bodies of water not subject to tidal or intermittent flooding.

Crawfish (crayfish) production is another possible type of aquaculture for South Carolina. The state's climate, soils, and water are well suited to crawfish farm development. Our old rice fields and other lands with flat topography, abundant water, and high clay content are capable of producing yields of 1,500-2,000 pounds per acre — slightly higher than average. Production, harvesting, processing, and marketing techniques are well documented, and techniques now being used in Louisiana are already being applied by some South Carolinians.

Constraints on crawfish production, which are discussed in greater detail by other authors in this publication, are best addressed by policy makers.

Ecologically speaking, however, aquacultural operations would have positive effects on waterfowl, fish, shellfish, and other wildlife species. The water discharged from crawfish ponds, for example, would be far superior in quality to the water currently draining from these lands, because the aquaculturist *must* manage the quality of the water carefully.

In general, South Carolina may have a greater potential for growth in crawfish farming than in many other kinds of freshwater aquaculture because construction costs here are relatively low and the return on investment is high. With average yields (1,500 pounds an acre), returns of $450-500 an acre would be common.

Freshwater bait and **ornamental minnows** also could be grown in South Carolina. Arkansas, Florida, Maryland, Indiana, and California have taken the lead in the production and sales of these animals, which are trucked or flown to markets throughout the country. But American fishermen spend large amounts annually on bait minnows, and there is no reason why South Carolina's bait minnow growers could not compete with these other states.

Lack of experience, lack of knowledge, and lack of financial support are the major constraints to minnow and ornamental fish production in South Carolina. But these animals can grow and do well here.

There are many other species that could be raised in South Carolina. **Eels, carp, tilapia,** and some other freshwater species are capable of making money here for the conscientious manager or business person. But state agencies and educational institutions must supply the information and stimulus needed.

The culture of **hard clams** (little necks, cherrystones, quahogs) has great potential in South Carolina, too. Clam culture began in Southeast Asia hundreds of years ago. The importance and technological sophistication of clam aquaculture in the United States, however, surpasses most other countries. The majority of the large clam culture facilities are located in the Northeast, but one commercial facility, Trident Farms, is getting started in Charleston, South Carolina, and the economic prospects appear very promising for a large-scale operation.

There are legal and regulatory constraints to clam culture. South Carolina legislators must determine who shall have jurisdiction of the water column and estuary bottom in which clams are grown, as well as water usage and discharge rights in public waters.

With proper management, **shrimp** production also might make money for the South Carolina investor. Shrimp farming in the United States is still in the research and development stages and has not shown significant profitability. In South Carolina, shrimp aquaculture in the old rice field impoundments of the Low Country has been successful, but annual yields have been erratic and average production has been low for market-size shrimp.

In Central and South America and Southeast Asia, shrimp aquaculture has reached a profitable commercial level. This has not been the case in the United States because our growing season is short (in most cases, in tropical countries, it is year-round), and we do not have inexpensive and predictable sources of mated female shrimp or larval shrimp from the wild. A shrimp aquacultural company in the United States would have to have shrimp produced in hatcheries to be economically successful.

Marine live bait shrimp and **bait fish** also have tremendous potential for South Carolina. Natural baits are used commonly by South Carolina recreational and commercial fishermen. For example, resident and vacationing sport anglers in South Carolina want live bait animals to drift in tidewater creeks or to troll in their favorite offshore spots, but there is very little available today on a regular basis.

Shrimp aquaculture for live bait production has potential in South Carolina because of the higher price per pound for live bait shrimp and the lower production costs as compared to production of larger shrimp for food. At present, nearly all live bait shrimp sold in South Carolina are obtained from out of state, primarily from Florida and Georgia.

Marine fish, such as **red drum, spotted seatrout,** and **hybrid striped bass,** likewise show promise as "recreational harvest" animals for fresh, brackish, and/or saline impoundments. Growth of these animals in such conditions has been documented, and sufficient profits are likely if local or tourist recreational fishermen pay a fee to catch the fish.

All in all, constraints on aquacultural enterprises in South Carolina are not technical or even financial. Rather, they relate mainly to a lack of policies and relevant laws.

Policy Questions

Most of the policy questions arise with saltwater aquaculture, which, by definition, is confined to coastal areas that also are of interest to homeowners, real estate developers, commercial fishermen, and environmental groups. Hence, when an aquacultural venture is proposed for a portion of a navigable waterway or coastal zone, conflicting interests can cause controversy.

Laws that govern marine water rights, ownership titles to tidelands, and public access to the coastal zone

"Constraints on aquacultural enterprises in South Carolina are not technical or even financial. Rather, they relate mainly to a lack of policies and relevant laws."

regard renewable aquatic resources as public domain. Generally, then, the development of coastal aquaculture in South Carolina is dependent largely on the many government agencies that have some control over commercial development in these coastal and water resources areas. Each seeks to protect the public interest mandated to it. These agencies do not exert insurmountable controls, but, combined with conflicting public interests, bureaucratic issues, and different interpretations of existing laws, they do restrain aquacultural development.

Freshwater aquaculture ventures face fewer conflicting laws and policies, because it is regarded principally as an extension of traditional farming and is regulated as a form of land agriculture. Private ownership of land is not an issue, as it can be in saltwater aquaculture.

Aquaculture, then, has the potential of becoming a major industry in South Carolina. The natural resources and climate are ideal for a large number of culturable fish and shellfish species which are being profitably raised in other Southern states. It is an environmentally sound alternative land/water use for our state. Aquaculture will require planning for proper implementation and infrastructure growth, but it will have a large, positive effect on our state by producing diversified, viable, economic growth. □

Aquabusiness: Is It Feasible Financially for You?

You want to invest in aquabusiness. But how do you manage the complex calculations required to tell you how much it will cost? Try using a computer.

James P. Gaines, F. Jerry Ingram, and Jack M. Kendree, Jr.

CURRENT computer technologies should be exploited in aquabusiness decision making. They provide a rapid and relatively inexpensive means of managing the many complex calculations required to construct the necessary base of information. This article introduces an aquabusiness decision model developed by the authors through research grants from the Georgetown County Development Commission and the South Carolina Department of Wildlife and Marine Resources. The goal of the model is to make the difficult decisions facing the prospective aquabusiness entrepreneur and lender more manageable. The major features of this computer-assisted aquabusiness decision program are

1. an investor's internal rate of return (a measure of profitability),
2. rapid pro forma (projected) financial statement development,
3. simulation capabilities, and
4. a lender's internal rate of return.

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Use the "Macro" to "Micro" Approach

The preferred approach to most business investment decisions begins with a "macro," or big picture, analysis. Assuming favorable results, they then move by steps into a "micro," or project specific, analysis. Aquabusiness investing is no different. Many federal statutes exist that impact on coastal, wetland, and estuarine land and water usages. Use constraints often exist at the state and local level as well. A macro to micro approach points up important market trends in species consumption and production, related costs, and prices which aid in identifying alternatives for further analysis. Shrimp, for example, currently are experiencing increases in consumption, price, and importation, while catfish are suffering from depressed prices, overproduction, and stable consumption. Once favorable macro conditions have been determined, the more specific task of conducting the micro analysis can be undertaken.

The micro aquabusiness decision process (see Figure) begins with the selection of an appropriate, systematic method which will be applied to the financial estimates generated subsequently. This is sometimes called a "decision model" since it operates the same way each time, regardless of changes in data. The second step is the collection of appropriate financial data. This is the most critical step, since inaccurate input data will lead to inappropriate results and decisions. Step three is the application of the decision model to the financial data, which involves reducing many financial relationships down to a single measure suitable for comparison with other investment opportunities. Step four tests the strength of the initial financial result by varying critical input estimates. Finally, the analyst must digest the results of the preceding steps and render an aquabusiness investment decision.

Select the Decision Model

THE aquabusiness decision process begins with the selection of a systematic computational framework, or model, which is used to evaluate the performance of a proposed activity in terms readily comparable to other investment opportunities. Possible decision tools include internal rate of return (I.R.R.), net present value (N.P.V.), payback period, return on investment (R.O.I.), and return on total assets (R.O.A.). The USC

aquabusiness decision model uses the internal rate of return decision criterion. I.R.R. is defined as the rate that equates future net income flows (through discounting) to the initial cash outlay that brought the cash flows into being. This I.R.R. decision criterion was selected for its wide acceptability in financial circles as well as its intuitive appeal. That is, the entrepreneur (investor or lender) need only contrast the I.R.R. generated by the model with that of other (similar risk) investment alternatives (or subjectively adjust for risk differentials) to determine if aquabusiness is the highest return investment alternative available.

Assemble Financial Data

Crawfish farming was selected as a case study for this article. Aquacultural scientists Jesse Chappell and Keith Taniguchi of USC's Baruch Institute provided costs and income data for a variety of hypothetical aquacultural activities.

It must be emphasized, though, that each prospective aquaculturist must evaluate his or her own situation. Although the data presented here are the most current estimates of trained professionals, the outcome may be better or worse than that of any other given aquacultural-maricultural project because of project specific factors.

Table 1 is a summarized financial statement for a hypothetical 40-acre crawfish farm. The initial investment cost of $150,000 includes land acquisition and preparation for crawfish farming. If an investor already owns suitable land, currently either idle or marginally productive, initial capital costs would be reduced by approximately $50,000. Annual operating expenses are estimated to be $40,000. It is assumed that operating funds are borrowed under terms similar to those for other farming operations. Expenses, therefore, include interest, and management is compensated before profit. Finally, the cash flow computation is based on an annual harvest of 64,000 pounds. The scientists have indicated that, depending on management techniques, harvests could range anywhere from 32,000 pounds to 100,000 plus pounds. Based on an assumed market price of $1.25 per pound, a net cash flow of $28,000 results.

Apply the Decision Tool

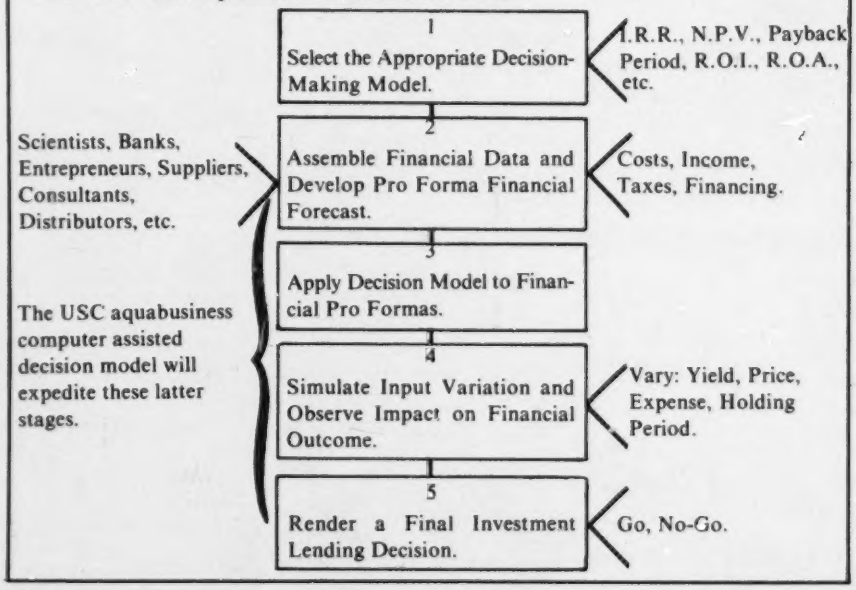
For the internal rate of return decision rule to be applied, additional assumptions must be made. First, the hypothetical investor is assumed to hold the investment for nine years (any reasonable period of operation may be selected). Second, at the end of year nine, the property is assumed to be sold for $100,000 net of costs. With that information in hand, and assuming a stable net cash flow of $28,000 per year, an I.R.R. of 16.8 percent results. If the aquabusiness entrepreneur already owned the land, by contrast the I.R.R. would be 28 percent. Either of these may be viewed as acceptable or unacceptable returns, depending on the risk involved and the return available on alternative investments of similar risk. Further analysis is required to move beyond these single point estimates of the expected return.

Conduct Simulation Studies

As emphasized above, pro forma estimates of the financial performance on an aquabusiness venture are inherently questionable because of the many uncertainties (technical and economic) involved. Simulation studies should, therefore, be undertaken to observe the impact on the I.R.R. as key input factors are varied. The variability of production yields, for example, was alluded to earlier; and internal rates of return should be generated based on simulated operations using both increased and reduced harvests. Table 2 presents alternative returns, assuming 8,000-pound incremental production outputs above and below the original 64,000-pound yield estimate. If yield is overestimated or if the entrepreneur's ability to harvest the product is, in fact, below the required level, harvests such as 56,000 pounds or 48,000 pounds might result. Internal rates of return in those cases fall from 16.8 percent to 12.0 percent to 8.0 percent, respectively. The I.R.R. falls from 28.0 percent to 22.0 percent to 16.0 percent, respectively, in the land-already-owned example. In either case, it can be shown that a 25 percent drop in production yield from 64,000 pounds results in an approximate 43 to 52 percent decline in the value of the I.R.R.

On the other hand, the prospective entrepreneur may feel confident in

FIGURE. The Aquabusiness Decision Process


1
Select the Appropriate Decision-Making Model.
I.R.R., N.P.V., Payback Period, R.O.I., R.O.A., etc.
2
Assemble Financial Data and Develop Pro Forma Financial Forecast.
Costs, Income, Taxes, Financing.
Scientists, Banks, Entrepreneurs, Suppliers, Consultants, Distributors, etc.
3
Apply Decision Model to Financial Pro Formas.
The USC aquabusiness computer assisted decision model will expedite these latter stages.
4
Simulate Input Variation and Observe Impact on Financial Outcome.
Vary: Yield, Price, Expense, Holding Period.
5
Render a Final Investment Lending Decision.
Go, No-Go.

"The preferred approach to most business investment decisions begins with a 'macro' analysis and moves into a 'micro' analysis. Aquabusiness investing is no different."

his ability to manage the technologies required to harvest more than 64,000 pounds. If so, production yield has been underestimated and may reach levels of 72,000 or 80,000 pounds. At these higher production levels, the I.R.R. increases from 16.8 percent to 21.1 percent and 25.4 percent, respectively. The I.R.R. increases from 28.0 percent to 34.0 percent and 40.0 percent in the land-already-owned situation. Thus, a 25 percent increase in harvest yield results in an approximate 42 to 51 percent increase in I.R.R. This simulation process may be applied to any of the critical variables that impact on the I.R.R. computation to estimate expected changes in investment performance.

Other candidates for sensitivity analysis include per unit market prices, operating expenses, depreciation methods, taxes, holding periods, and alternative financing arrangements. The aquabusiness computer decision model enables easy, rapid, and relatively inexpensive exploration of the fundamental risk-return relationships.

The computer has similar capabilities regarding other possible outcomes. For example, investors may be interested in the impact of a disastrous (crop failure) first year. To illustrate, the crawfish farm generates an I.R.R. of 13.3 percent under conditions of disaster in year one (or roughly 22 percent for the land-already-owned example). This tolerance of year one zero cash flow may or may not be viewed as acceptable by the individual prospective crawfish aquaculturist. Alternative outcomes may be readily evaluated using the computer, giving the analyst a powerful tool in assessing a given investment opportunity's ability to perform under a variety of unforeseen events not built into the original hypothetical operation.

TABLE 1. Operations Information for a Hypothetical 40-Acre Crawfish Farm in South Carolina

Initial Investment Cost	
Land ($50,000) earthwork, piping, gravel, service facilities, pumping equipment, well, miscellaneous, and stock	$150,000
Operating Expenses	
Fuel, repairs, bait, utilities, rice planting, labor, management, and interest expense	40,000
Cashflow Computation	
Gross Income (64,000 lbs. @ $1.25)	80,000
Less Operating Expense	40,00
Equals Net Income	40,000
Less Depreciation on Site Improvements	10,000
Equals Taxable Income	30,000
Less Taxes @ 40%	12,000
Equals Net After Tax Income	18,000
Plus Depreciation	10,000
Equals Net Cash Flow	$28,000

I.R.R. for 9-year holding period = 16.83%.

Finance Arrangements

TODAY, financing arrangements may not be as simple as a traditional fixed-rate fully amortized loan. Often funds must be assembled from more than one source. Some lenders now require income participation in exchange for accepting risk or for offering below market rates. The USC aquabusiness decision model accommodates these realities by allowing the participating arrangements to be fed into the computer whenever a loan is involved (with or without participation by the lender).

The model, in addition to computing the entrepreneur's I.R.R., computes the lender's I.R.R. Typically, the lender's return is fixed by the interest charged on the loan. The option of income participation has transformed the lender's actual rate of return into a range of values, the lower limit of

TABLE 2. Alternative Yield Outcomes for a Hypothetical 40-Acre Crawfish Farm in South Carolina

	INCREASED YIELD		MODEL	REDUCED YIELD	
YIELD	80,000 lbs.	72,000 lbs.		56,000 lbs.	48,000 lbs.
Gross Income	$100,000	$90,000		$70,000	$60,000
Net Cash Flow	40,000	43,000		22,000	16,000
I.R.R.	25.40%	21.14%	16.83%	12.45%	8.00%
I.R.R. Land Already Owned	40.00%	34.00%	28.00%	22.00%	16.00%

which is represented by the fixed loan rate (assuming no default). Whereas traditional lender analysis concentrates on debt coverage capabilities and default probability, the analysis is now expanded to evaluate the range of values the lender's I.R.R. might assume. Since the model computes both investor and lender I.R.R.'s simultaneously and prints the results side by side, it enables both parties to evaluate amendments to any preceding financial framework, and allows each to see clearly the impact of any changes on their anticipated I.R.R. position. The model is also capable of incorporating more than one lender/investor into the analysis.

The USC aquabusiness computer decision model and related method are approaching final stages of development and testing, and will be operational in early 1984. By that time, the model will be available to help any prospective aquaculturist, lender, or scholar interested in exploring this area of business decision making. The method presented here, given the input of scientific professionals, should provide the aquabusiness decision maker with the maximum amount of financial information available. □

"The aquabusiness computer decision model makes possible easy, rapid, and relatively inexpensive exploration of the fundamental risk-return relationships."

Aquaculture-Mariculture: A Look at the Legal Questions

South Carolina's tidelands and coastal areas are perfect for some types of aquaculture. But environmentalists, real estate developers, homeowners, and commercial fishermen like the tidelands and the coast, too. And herein lie the legal problems.

H. Wayne Beam

FOR the better part of this century, South Carolina has protected its 500,000 acres of unique salt marshes, or tidelands, as one of its most beautiful and valuable resources. Navigable streams (also called submerged lands) are protected by law as well. The fact that aquacultural-maricultural activities compete with other uses for these resources, however, suggests the obstacles that may arise to hinder the industry's development.

These obstacles may be especially difficult for maricultural (or saltwater) operations, because the surrounding coastal areas are of interest to environmentalists, real estate developers, commercial fishermen, homeowners, and tourists. Some of those conflicts are now being addressed in a legal case before the South Carolina Supreme Court. Its decision may be crucial to the development of some forms of aquaculture in the state.

H. Wayne Beam is Executive Director of the South Carolina Coastal Council. He is a former Director of the Division of Natural Area Acquisition and Resources Planning of the South Carolina Wildlife and Marine Resources Department and a former Deputy Executive Director of the South Carolina Land Resources Conservation Commission.

Since 1977, Coastal resources have been regulated by the South Carolina Coastal Management Act. Under this and other applicable laws, there are both legal and regulatory restraints on the use of tidelands and submerged lands.

While South Carolina law has consistently recognized that both submerged lands and tidelands might be held in private ownership, its treatment of submerged lands has been more stringent. In **State v. Pacific Guano Company** (22. S. C. 50 [1884]), the court ruled that submerged lands are held by the state, not in a private capacity, as an owner in fee, but rather in a fiduciary capacity, as a trustee for the public.

Coastal Management Act

Section 22 of the South Carolina Coastal Management Act of 1977 provides that any person claiming an interest in tidelands "may institute an action against the State for the purpose of determining the existence of any right, title, or interest of such person in and to such tidelands as against the State." The ownership issue had clouded discussion of management of coastal resources for years, and this section, in essence waiving the State's sovereign immunity in the case of tidelands ownership suits, represented the compromise that allowed bipartisan support of the legislation. The Coastal Management Program provided for in the Coastal Management Act also developed a regulatory scheme to protect the economic interests of the coastal zone while regulating land and water use.

Under this program, three laws impact on aquacultural-maricultural operations. These range from purely federal regulation to regulation under a state statute. The federal presence is insured through the Rivers and Harbors Act of 1899, administered by the U.S. Army Corps of Engineers. The U.S. Environmental Protection Agency administers the Federal Water Pollution Control Act, but most of the responsibility for implementation of that statute's provisions has been delegated to the South Carolina

"The fact that aquaculture and mariculture compete with other uses for tidelands and submerged lands suggests the obstacles that may arise to hinder the industry's development."

Department of Health and Environmental Control (DHEC). The state's coastal management statute, administered by the South Carolina Coastal Council, provides a basis for the state's direct overview of the impact of aquacultural-maricultural operations.

Of particular importance to this regulatory scheme is the section 401 Water Quality Certification, required pursuant to the Federal Water Pollution Control Act. Provided by DHEC, this certification that water quality will be maintained is one of the more important factors considered by the Corps of Engineers and the South Carolina Coastal Council in making a decision to grant or deny a permit application.

Permit Criteria

The Coastal Management Program states that

1. In the coastal zone, South Carolina Coastal Council review and certification of aquaculture permit applications will be based on the following policies:

(a) The impoundment of previously undisturbed, productive salt, brackish, or freshwater wetlands for aquaculture will be prohibited where other feasible alternatives exist.

(b) Aquacultural proposals must demonstrate compliance with applicable state and federal water quality standards for discharge or drainage.

(c) For each aquacultural proposal the value and yield which is anticipated from the project should be weighed against any environmental damage, such as loss of habitat from impounded areas. This consideration will be included by the council in its decision making, and applicants may be asked to provide relevant information toward the determination of such costs and benefits.

(d) Applicants for aquacultural operations must provide an acceptable management plan for operation.

2. In critical areas of the coastal zone, it is South Carolina Coastal Council policy that:

Policies for dredging and filling and for marsh impoundments will be applied to aquacultural projects, where appropriate.

An Important Precedent

THE fate of one permit application for impounding marsh to be used, at least in part, for mariculture may well set the precedent by which similar applications are considered. (Such dikes often are an integral structure at coastal fish farms). An understanding of the issues surrounding this application is tantamount to an overview of its legal and regulatory complexities.

On August 10, 1981, the South Carolina Coastal Council and the U.S. Army Corps of Engineers issued a joint public notice to all interested parties announcing the fact that C. E. Graham Reeves had filed an application seeking permission to repair and expand existing embankments, construct new embankments, and install water control structures in wetlands adjacent to Minim, Cork, and Little Duck Creek on Minim Island, at Annandale Plantation, Georgetown County, South Carolina. Reeves planned to use the dikes primarily to improve duck hunting, but secondarily for maricultural activities.

On November 19, 1981, the 9-member permitting committee of the South Carolina Coastal Council, after considering the responses of all commenting agencies, approved the application with certain provisions. The decision was appealed immediately to the full 18-member council by the South Carolina Attorney General, the League of Women Voters of South Carolina and Charleston County, and the Natural Resources Defense Council. Reeves also was made a party to the proceedings.

The Attorney General, in a separate action, petitioned the Circuit Court and was granted a Temporary Restraining Order and Rule to Show Cause against the Coastal Council by Judge John Waller on November 30, 1981. At a subsequent hearing on the matter, the court denied the Attorney General's request for a permanent injunction. The council then issued the permit to Reeves with the warning that the matter was under appeal.

Under the provisions of the State Administrative Procedures Act, the council held an evidentiary hearing for three days in April and May 1982 for the purpose of compiling a record in this case. A transcript of 604 pages of sworn testimony resulted.

After studying the transcript and hearing oral arguments, the full council voted November 12, 1982, to

"Some aquacultural-maricultural operations may be delayed until the legal, environmental, and property rights issues are decided."

sustain the previous action of the Permitting Committee to issue the permit with provisions. The Findings of Fact and Conclusions of Law for the case were approved by the council, and the final order was signed by the council's Chairman January 4, 1983.

The Attorney General filed a Petition for Judicial Review of the Matter in the circuit court in Georgetown County January 26. January 28, the League of Women Voters of South Carolina and the League of Women Voters of Charleston County filed a similar petition. The parties contended, among other things, that the Coastal Council erroneously found the power to issue such permits within its statutory authority under the South Carolina Coastal Management Act.

Judge's Ruling

ON June 29, 1983, Circuit Judge James M. Morris issued a ruling in the case. In reviewing the record as a whole, he found substantial evidence to support the coastal council's decision granting the permit. Judge Morris also found that the council has statutory authority to issue permits for impoundments. He further concluded that the proposed project does not violate the coastal council's policies, rules, or regulations; or contravene the state's Coastal Management Program. The Attorney General immediately said he would appeal the decision to the South Carolina Supreme Court.

Because of the complex legalities illustrated by the Reeves' case, the future of aquacultural-maricultural operations requiring impoundment of marshes in South Carolina is not clear. Commenting agencies, such as the U.S. Fish and Wildlife Service, the U.S. National Marine Fisheries Service, and the South Carolina Wildlife and Marine Resources Department, seem to be sympathetic to the overall objective of protein production by aquaculture and mariculture, but lack of information on the impact of these operations on the natural system tempers their enthusiasm, particularly when marsh impoundment is involved. The Attorney General's perception of his role in cases where public trust properties may be involved will surely influence development of the industry in South Carolina, and final resolution of the Reeves' case by the South Carolina Supreme Court may well establish a long-awaited precedent.

Questions of coastal land ownership, too, await resolution, probably by the courts. Since no one is legally sure who owns or controls much of this land, full-scale maricultural operations may depend on how the courts resolve these issues.

These controversies don't rule out freshwater aquaculture, of course, where private ownership of land isn't an issue. But some aquacultural-maricultural operations may be delayed until the legal, environmental, and property rights issues are decided.□

Nurturing Aquaculture: Why a State Policy Is Needed

Aquaculture is a relatively clean industry that's well suited to South Carolina's environment, and it could create both jobs and income. But a state public policy is needed to make it grow, and right now there isn't one.

Mark E. Tompkins

AQUACULTURE and mariculture offer attractive opportunities for South Carolina to employ some of its many natural resources productively, without irreversibly damaging them in the process. Proponents suggest that development of this relatively clean coastal industry could create new jobs and add seafood crops with an annual wholesale value of more than $15 million over the next 10 years.

Today, however, even though aquacultural and maricultural enterprises are found in 33 of South Carolina's 46 counties, aquabusiness is still in its infancy. Most of our knowledge continues to be provided by a few entrepreneurs who find both opportunities and constraints shaped by public policy. Since opportunities for aquaculture-mariculture will be directly affected by public policies, it is important to examine the role public action could and should play in South Carolina to nuture this infant, but potentially important, industry.

Mark E. Tompkins is an Associate Professor in the Department of Government and International Studies at The University of South Carolina. He specializes in public policy analysis of health and environmental issues, and has done research on the economic value of wetlands and public policy issues arising from coastal wetland impoundments.

Several steps could be taken by the public sector to foster development of aquaculture and mariculture. The first step would be recognition of this infant but distinct industry — a step that seems to pose only modest problems and to involve only minor political difficulties. A second step would require more dramatic action: a substantial commitment to an aquacultural-maricultural industry, including public policies to resolve a number of potentially important conflicts over the use of various scarce resources. Finally, the state could move even more dramatically to encourage and promote the industry. Such an effort, establishing priority for these enterprises, would require direct decisions about the use of scarce resources and commitment to the needs of aquabusiness.

Recognition

While several states have adopted special legislation focused on aquaculture (for example, Arkansas in 1981 and California in 1982), South Carolina has not adopted a statutory definition of aquaculture and/or mariculture. This leaves the status of these enterprises unclear, and raises a number of questions. Are aquacultural and maricultural activities, for instance, to be treated equally? If so, they must be recognized as related enterprises. (In this discussion, they will be treated together.) Are the subsidies available to agricultural activities extended to aquaculture? (1982 California legislation defines aquaculture as a form of agriculture, declaring that any state law providing for the benefit of the agricultural industry should apply to aquaculture as well.) Where does regulatory authority over these enterprises reside? (Is it a form of agriculture and, accordingly, a responsibility of the Agriculture Department? Or, is it an aspect of commercial and recreational fishing and, accordingly, the responsibility of the Department of Wildlife and Marine Resources? Or, is it an enterprise raising questions of environmental quality, and, therefore, the

responsibility of such agencies as the Department of Health and Environmental Control? Or, is it primarily raising questions concerning competing land uses and, accordingly, the province of local land use regulations?)

The lack of statutory attention to aquaculture has another paradoxical impact. Many of the species involved in aquaculture are present in the wild and available for public recreation and consumption. Public policies are designed accordingly to prevent private interests from capturing and holding these public resources for private gain. This means, then, that an aquaculturist may have no property rights to the animals, even when they have been privately cultured. The situation affords no security for aquaculturists' investment in their stock and, indeed, no protection against poaching and theft. (1981 Arkansas legislation establishes the private ownership of cultivated animals and significant penalties for poaching and theft.)

The neglect of aquaculturists' interests in these species creates an additional constraint on experimentation and innovation. Current legislation aimed at restricting the importation of exotic species and regulating the transport and handling of animals in the public domain has the effect of restricting aquaculturists' efforts to cultivate non-native but promising species and to import nursery stock for their enterprises. The recent controversy over the so-called grass carp, or white amur, provides an example of the problems. Some view it as a promising species for biological weed control (and, therefore, helpful in farm pond aquaculture), but its use has been prohibited as an exotic, non-native species (in part because of concern that it would compete with native species in local settings).

Aquaculture's status as an infant industry in South Carolina creates several additional problems that may be resolved through public or private action. First, marketing strategies are still dominated by various forms of casual sales rather than systematic contractual arrangements. The absence of a systematic marketing strategy restricts the scale of these enterprises and limits an entrepreneur's commitment. Second, many forms of aquaculture require substantial capital investments; until recently, this was thought to be a significant start-up barrier. Commercial investors' uncertainty over the viability of these efforts (produced, in part, by some unfortunate experiences with catfish farming a decade ago), coupled with the investments required, had limited the available capital. More recent reports, however, suggest that private capital now is available. In addition, 1982 legislation establishing the South Carolina State Family Farm Development Authority is designed to make loans available at favorable interest rates to family farmers, including those engaged in aquaculture, shellfish culture, and fish hatchery operations. (There also is a legislative proposal to grant tax credits to aquaculturists for pond construction and impoundment restoration, along with other farm investments, which has not passed either house to date.)

Finally, certification and inspection arrangements, which provide assurances that seed and commercial stock are free of contamination, are required for large-scale operations. These could take the form of holding facilities, where stock is held for sufficient time to provide the assurance needed, or they could involve some other form of protection.

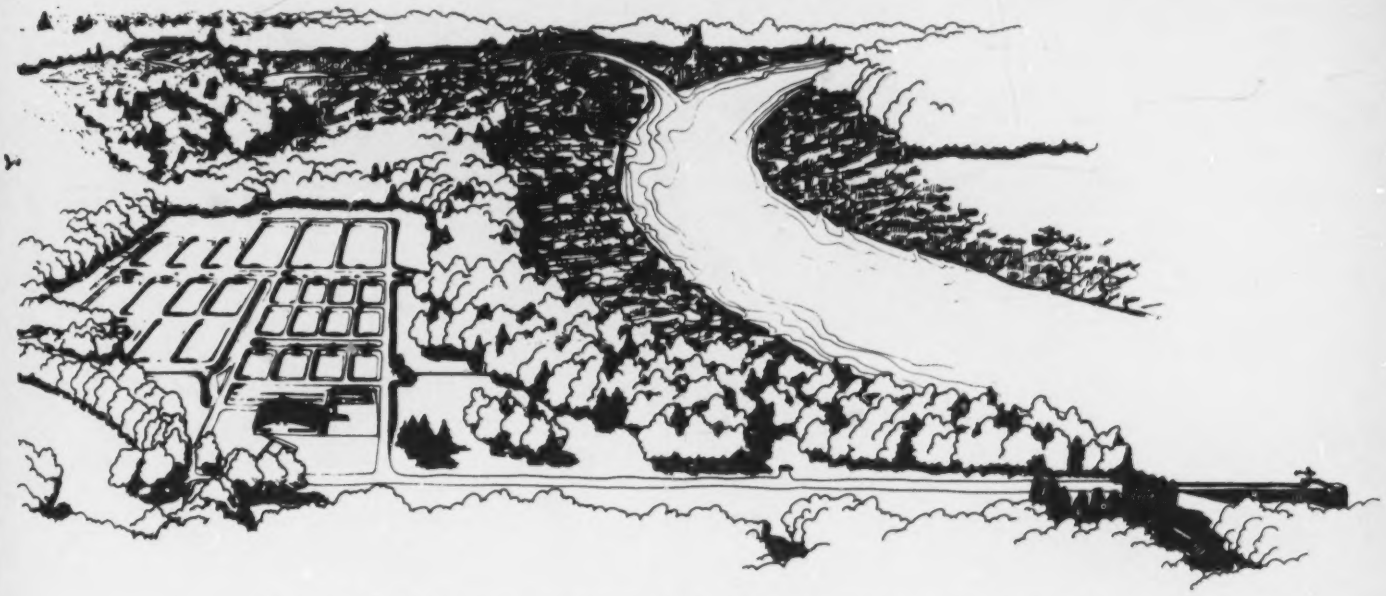
Potential Problems

AQUABUSINESS also confronts a variety of regulations aimed at other industries which retard its development. Occupational safety and health regulations need to be adapted to the special working environment of aquaculture. Divers, for example, work under very different conditions in these enterprises compared to other types of commercial diving. Seasonal restrictions governing some species will need to be revised to accommodate the culture regimes. Some other regulations, such as those limiting the use of mechanical equipment, may need revision as well. Finally, aquaculture may need recognition as a distinct industry in the tax code; its current treatment as a form of commercial fishery may not establish appropriate investment and operational incentives.

The new industry confronts one other important problem: scientific uncertainty. Differences in climate and the character of natural resources make it difficult to transfer knowledge gained in similar efforts in states such as Washington, California, Arkansas, and Mississippi. The economic viability of these enterprises is, not surprisingly, very sensitive to yield. In turn, yields depend on the performance of the cultured species in particular settings.

According to Dr. Paul Sandifer, Assistant Director of the Marine Resources Institute of the South Carolina Department of Wildlife and Marine Resources, there are more than a dozen species of shrimp (one of the more promising animals for commercial enterprises) interesting enough to warrant further work on their performance in various areas of the world. Several species have some potential for cultivation in South Carolina. Species of crawfish and prawns also should be evaluated; their appropriateness and performance will vary according to temperatures, salinities, and other not-easily-manipulated environmental conditions. Apart from these species, catfish and other fish have been successfully cultured and will prove appropriate under some conditions.

A number of other aquacultural efforts deserve further examination in South Carolina's setting. "Put and take" fisheries, where species are stocked for restricted access recreational fishing, may be productive in South Carolina. Supplemental stocking programs, which provide cultured stock for public fisheries, may also merit additional public investment here. In the Northwest, a substantial "ocean ranching" salmon industry has emerged, where cultured fish are released into the wild to grow, but return to the point of release in sufficient numbers to create an economically viable enterprise. It is not yet clear whether similar efforts with another species would succeed in this state.



The new Waddell Center near Beaufort will be a focal point for maricultural work.

Some aquacultural enterprises have practiced polyculture successfully, i.e., raised several species in the same facilities. This could be an attractive means of adapting to South Carolina's seasonal variations in temperature. One aspect of multiple species management could deserve special attention: since substantial areas along the coast that might be promising sites for aquaculture are currently managed to attract waterfowl, the relationship between these two management regimes deserves further investigation.

Waddell Center

To examine some of these issues, state government has created the James M. Waddell, Jr. Mariculture Research and Development Center, now being constructed at Victoria Bluffs on the Colleton River near Beaufort. The center is expected to be the focal point for pilot-scale maricultural field work. It also will serve as a site for conducting a variety of cooperative aquacultural activities in research, education, extension, and demonstration, using the resources of the state's various higher education institutions. The resident staff and other users will have on-site facilities, including 24 outdoor ponds, a research and development building, a manager's residence, a dormitory/conference building, a 265-foot pier and floating dock, and the systems necessary to vary the mix of fresh and sea water used in a particular experiment.

What can we expect from this investment? The Waddell Center will be developing propagation and farming techniques for the culture of marine and brackish-water species of finfish, mollusks, crustaceans, and plants, and improving our understanding of the appropriate species and settings for aquaculture in South Carolina. In cooperation with Clemson University and The University of South Carolina, training programs and demonstrations of aquacultural practices will be conducted for extension workers, for aquaculturists and potential entrepreneurs, and for others interested in disseminating information about aquaculture and fostering its growth as an industry. It will also serve as a source of expertise and information on the industry in the United States and other countries. Finally, it will provide opportunities and facilities for training in scientific and management expertise for those interested in mariculture.

This investment notwithstanding, however, there still appears to be little public interest in aquaculture. Many of the issues raised above were identified before the last legislative session, but little happened. Shellfish leasing program modifications, dating back to a 1981 legislative study committee report, which included several provisions for aquacultural activities, have not yet been adopted. At the federal level, the 1980 Aquaculture Act was passed, but it lies dormant, stalled by funding problems. In short, there are a number of basic, recognized steps needed to encourage aquacultural development which have not yet been adopted in South Carolina. This inaction appears more critical when it is compared with the progress of a number of other states, ranging from California to Rhode Island to Arkansas, which have acted to nurture the development of this infant industry.

Conflicting Values

A substantial public commitment to development in this area, or the emergence of substantial private activity without explicit public encouragement, would pose new problems,

"Proponents suggest that development of this relatively clean coastal industry could create new jobs and add seafood crops with an annual wholesale value of more than $15 million over the next 10 years."

however. These would arise as aquacultural development created conflicts over the use of valued resources.

One set of conflicts that could emerge involves land uses. Aquaculture, as practiced in farm ponds, poses few such problems. Mariculture, however, employs scarce coastal resources, so more conflict could be produced.

South Carolina has important coastal resources in the form of impounded wetlands, created for rice culture in the 18th and 19th centuries but no longer used for this purpose. (According to an inventory of coastal marshland reported by Ralph Tiner, et al., approximately 12.6 percent of the coastal wetlands, roughly 70,000 acres, are still impounded, with perhaps a similar amount of formerly impounded land available, which has now fallen into disrepair. Of the reported 556,000 total acres, 60 percent is saltwater marsh.)

Some of these sites are now managed to attract waterfowl, with adjacent blinds reportedly leased for as much as $1,500 per season. Public reports from those studying the local waterfowl situation suggest that the population of waterfowl is, at best, stable and may be declining. Nonetheless, substantial demand for additional blind sites still exists. New sites could redistribute and disperse the available waterfowl population, but they could also conflict with other uses of the impounded areas. The state lays claim to lands below the mean high water mark in the absence of a prior grant of title, although many of the conflicts between this claim and private ownership claims have not been adjudicated. These claims pose conflicts over various uses, arising from differences among public and private interests.

The controversy may be sharpened by the outcome of the litigation over a proposal by C. E. Graham Reeves of Georgetown County to convert 660 acres of marshland to 3 impoundments (restoring old dikes and water control structures). Some contend that the primary result of this effort will be the creation of additional blinds for hunting waterfowl, while others point to Reeves' expressed interest in also conducting aquacultural work on the site and to the assistance he has provided to the scientific community working on aquacultural studies on his properties.

Since one of the critical issues in the case involves ownership of the sites, Reeves' success in obtaining the necessary permits could prompt others to apply for the right to impound wetlands. From the public's standpoint, that could lead to the removal of too much wetland from the natural state. Since these lands serve a number of critical natural resource functions, a variety of commercial and recreational activities could be affected. (Scientists do not completely understand all of the roles wetlands play, but they do know they clearly serve as nursery grounds and habitats for a number of species, in addition to serving as natural buffers against storms, a source of biomass, and as natural filtering mechanisms. In fact, one scientist, R. Eugene Turner, has suggested that coastal fisheries production has been directly related to the stock of wetlands in Louisiana over the years.)

From the standpoint of the aquaculturist, if these "duck ponds" are incompatible with efficient aquaculture, then potentially productive aquacultural sites are being diverted to less biological and economically productive uses. With wetland resources already scarce, other uses of these impoundment sites would restrict further opportunities for the development of the aquacultural industry.

Impoundments, and sites for potential impoundments, are likely to lead to conflicts between the natural functions of wetlands and their attractiveness as an aquacultural/maricultural site, in any case. If fully impounded and managed, their contribution to the coastal ecology could be limited or lost — captured for the use of a private aquaculturist. Our understanding of the relationship among these various uses of impoundments should be improved by a substantial multi-year study of ecological processes in impoundments now under way, supported by the South Carolina Sea Grant Consortium. Inevitably, some public process will be required to resolve the conflicts between these valuable (but differently valued) options.

Aquacultural activities could be conducted at a variety of other sites

that do not involve impoundments, using "pen culture" techniques (where the cultured organisms are confined in an open pen in the water), for example. These would pose fewer problems, but conflict would not be eliminated. Public bottomlands could be leased or sold to private aquaculturists to enhance the industry's production, but this would create conflicts over public access and use of these areas. These conflicts will emerge at specific sites (for example, with a nearby landowner or habitual user) and in general terms (as some lay claim to these areas for public purposes, such as recreation and environmental preservation.) In coastal areas particularly, the issues will be linked to questions of access to the culture site, since nearby high land could still be required for successful operation. Other riparian rights could be affected, as could navigation and waterborne commerce.

Additional Conflicts

Within a developed industry, additional conflicts will require resolution. As the industry grows, sites will become scarce. Some will already belong to private owners, but some means of allocating other sites (for example, by leasing public lands) will have to be developed. Decisions about the number of sites available will be shaped by estimates of the capacity of the public sector's natural resources and the amounts other activities require. Since these estimates are likely to be uncertain and controversial, pressures to expand the number of available sites could emerge.

A poll conducted in the state of Washington last summer suggests that these conflicts could be important. A total of 53 percent of the state's residents contacted felt that state government should control submerged lands; another 23 percent wanted local government control; with only 8 percent favoring individual private ownership. Most preferred to use these areas for fish and wildlife habitats and public recreation. While the political climate could be different in South Carolina, we can still expect these conflicts to increase as the state's important recreation and tourism sectors grow.

Public policy plays another significant role in the incentives presently governing land use. Even where impoundment structures already exist, continuing but often unresolved controversies over the ownership of wetlands and impounded wetlands increase the risk an adjacent landowner must run if he or she undertakes aquaculture on a site. Resolving these controversies is an expensive, time-consuming process whose outcome is difficult to predict.

Moreover, property taxation on impounded lands is minimal, with assessments varying from $10 to $50 per acre. Accordingly, the cost of preserving a claim to the area essentially withdrawn from the ecosystem, without using it in economically productive enterprise (or devoting the area to waterfowl management where costs are low), is small. As a result, some of these lands lie essentially fallow and, at the same time, are isolated from the larger ecosystem by impoundment structures. From the environmental perspective, this is tragic, since declines in the stock of wetlands along the United States coast are not improved by returning impounded lands to their natural wetland state. From the perspective of economic development, this is inefficient, since potentially productive resources lie idled by these uncertainties.

Aquaculture involves another set of conflicts, since it requires a relatively clean operating environment. As a result, it could be inconsistent with nearby heavy industrial activity and with the development of other polluting processes. It could also use scarce coastal land, which could otherwise be residentially or commercially developed. A community that makes a substantial commitment to aquaculture could find it necessary to restrict other, inconsistent activity. Without guarantees of environmental protection, entrepreneurs could be unwilling to make the capital and management investments required for successful aquaculture. At the same time, aquaculturists could find sufficient interests in common with environmental activists to permit them to work together on ecosystem issues. For example, both interests could be served by the creation of special preserves where environmental quality would be maintained. (Even then, though, their interests are likely to collide when considering such issues as wetland impoundments.)

In turn, while relatively "clean" technologies are involved, they still create discharges and environmental quality concerns under some circumstances. It's possible a developed industry could devise mitigation strategies and recovery technologies to address the concerns. It might also identify related activities, such as agriculture, which could use these discharges.

Aquaculturists could find themselves in conflict with commercial fishermen, too. They could compete for the use of the same water area, when aquacultural sites are placed in fishing grounds. They will be competing in related markets, *yet* they will require different operating environments (for example, in the seasons when their products are harvested and sold). They will produce similar products, but use very different production and harvesting technologies. Aquacultural production should be relatively stable, while commercial fishing will remain a risky endeavor. Economic advantages gained by one enterprise or the other are likely to be strongly resented; these reactions will be magnified by public sector commitments to support one of the industries.

Finally, substantial aquacultural development will require choices about risk bearing. A decision to nurture development could lead to the adoption of a public program to insure entrepreneurs against the various risks peculiar to the industry such as stock die-offs, natural hazards, theft, and market uncertainties. A more modest commitment could be undertaken through the provision of publicly subsidized insurance against such problems. Appropriate pricing would ensure that entrepreneurs remained sufficiently motivated to attempt to avoid such problems but sufficiently protected against these risks to con-

sider confronting them. Finally, it's possible private associations could provide this protection through some form of collective action.

Promotion

SINCE aquaculture is a relatively clean industry, involving minimal disruptions to the environment, it appears to be a potentially attractive use of natural resources. It provides employment for skilled workers, but does not require the substantial educational investments of a "high technology" industry. As a result, it is an attractive approach to improving the economic situation in a relatively poor state, such as South Carolina, that lacks a highly educated labor force.

The technology required is simpler and, therefore, more readily adopted and diffused, than that of many other industries — further enhancing its attractiveness as a focus for development. Small-scale aquacultural enterprises appear to be feasible as well. If this picture of aquaculture appears attractive, and it is accepted as a strategy for development, then state policy makers might make a more substantial investment in development in this direction. What would that require?

First, economic nurture. Existing tax codes would have to be revised to provide encouragement for aquacultural enterprises. Programs to provide sources of capital and hazard insurance might or might not be required, but their provision doubtless would encourage development in this area. Marketing arrangements, perhaps involving cooperative mechanisms, would have to be devised to ensure outlets for aquacultural products as well.

Second, aquaculture would require scientific nurture. Existing efforts to develop appropriate species' culture, propagation, and harvesting techniques would need to be expanded. Scientific resources to support innovation and experimentation would have to be fostered. Technical assistance and related educational programs, providing management expertise to these enterprises (such as the recent pilot program at Horry-Georgetown TEC), would have to be organized.

Third, legal and regulatory nurture would be needed. Existing regulatory authority and responsibility could be clarified, aiding entrepreneurs in establishing their enterprises. Perhaps using the relevant agencies, mechanisms could be organized to assist aquaculturists in designing facilities and obtaining the necessary permits. Ownership issues affecting potential coastal maricultural sites could be clarified. Even if this consisted only of establishing a leasing arrangement for otherwise unused bottomlands) and the column of water above the bottom), it would probably encourage additional aquacultural activity. Aquaculture could also be recognized as a desirable land use for certain natural resources, promoted over other less valued uses (such as waterfowl hunting) through the regulatory and taxing authority of the state.

Finally, aquaculture would require environmental nurture. Regulatory agencies would need to acknowledge the environmental requirements of an industry based on natural resource, restricting incompatible developments. These costs could be balanced against the other benefits associated with development of this type. They could be ameliorated by providing specific sites where these incompatible developments would be permitted.

Steps such as these would doubtless be controversial, conflicting with other important approaches to economic development. As a result, they are probably premature. However, it is difficult to evaluate them at present, because so little of the potential for aquaculture has been explored. Unlike other strategies for economic development, aquaculture-mariculture requires public recognition. These enterprises involve distinctive problems that can be mitigated through public policy without necessarily arousing the more substantial conflicting values a massive commitment to aquaculture would require.

In the absence of these efforts, public policy and its inattention to aquacultural concerns will continue to inhibit the development of what appears to be a relatively clean industry, well-suited to South Carolina's environment. Indeed, it may be all that stands in the way of South Carolina's assuming a national leadership role in the industry.□

"[Aquaculture] is an attractive approach to improving the economic situation in a relatively poor state, such as South Carolina, that lacks a highly educated labor force."

Putting Resources to Work in Aquaculture: The Georgetown Story

Nearly three years ago, the Georgetown County Development Commission took a look at possible economic development strategies. It settled on aquaculture as one of the most promising. Today, Georgetown is a model for other counties that want to develop aquabusiness.

Jack M. Kendree, Sr.

IN 1982, the South Carolina Sea Grant Consortium found that 35 of the state's 46 counties had aquacultural projects or programs in some form. This is the story of one of those counties.

It all began in February 1981 when the Georgetown County Development Commission started assessing future economic development strategies. The commission knew that Georgetown, one of the state's coastal counties, had many resources that could be utilized in the formulation of a development strategy. Those resources included the variety of water bodies that could be used for aquaculture, the availability of technical and professional services from state and federal agencies and educational institutions, and the world famous Belle W. Baruch Institute for Marine Biology and Coastal Research, the Yawkey Foundation, and Santee-Cooper's Aquaculture Research Center. In addition, a few private property owners already were engaged in certain types of controlled aquacultural production in both fresh- and saltwaters in Georgetown County.

Accordingly, the development commission created an Aquaculture-Mariculture Committee to assist them in assembling information on the kind of technical assistance available and in stimulating additional property owner interest. This committee now believes that the potential for aquaculture exists, not only in Georgetown County but also throughout the state.

The committee also believes South Carolina needs to develop an aquacultural policy. (See section on Observations and Recommendations, this article.)

Jack M. Kendree, Sr. is Executive Director of the Georgetown County Development Commission. A member of the World Mariculture Society and Past President of the American Society of Consulting Planners, it was Kendree who recommended the creation of the Aquaculture-Mariculture Committee to evaluate aquacultural potential in Georgetown County.

Preliminary Efforts

Early activities of the Georgetown Aquaculture-Mariculture Committee included identification of programs then ongoing in Georgetown County and at the educational and institutional level by the seven members of the South Carolina Sea Grant Consortium. Some of the more significant projects and programs included the research work of the Baruch Institute, under the direction of John Vernberg and Dennis Allen; the Yawkey Wildlife Preserve, under the direction of the South Carolina Department of Wildlife and Marine Resources and its present Director Bob Joyner; Santee-Cooper's Aquaculture Research Center at the Winyah Power Generating Plant, under the direction of Jim Tuten; and the emerging International Center for Public Health Research, directed by Winona Vernberg, Ed Oswald, and Ed Smith. In addition, the Cooperative Extension Service of Clemson University was represented by Jack Whetstone, and the Federal Soil Conservation Service was represented by Roy Todd and Bill Melven.

Our conclusion was that there existed a pool of knowledge and expertise in Georgetown County that

was enhanced by many outside groups. The commission felt that it could serve as a vehicle for an exchange of information between those resources and their community. Representatives of those organizations also were willing to assist in exploring the development of an aquacultural program in Georgetown County.

Wampee Aquaculture-Mariculture Seminar

As evidence of our interest in an aquacultural program, the Georgetown County Development Commission organized in 1981 what has become known as the Wampee Aquaculture-Mariculture Seminar, so named because it was held at Santee-Cooper's Conference Center in Wampee. The intent was to bring together individuals who could contribute to a proper evaluation of aquacultural potential in Georgetown County. Representatives from educational institutions and state agencies involved in aquaculture were in attendance, as well as such Georgetown County interests as legislators, government officials, farm property owners, bankers, lawyers, realtors, and resident technicians.

A number of objectives were achieved. An exchange of information was initiated, and considerable attention was focused on feasibility and economics. An appreciation of the complexities and interrelationships that exist in aquaculture emerged. The benefits stemming from the seminar suggested that it should be held on a continuing basis.

CAMP

DURING the spring of 1981, I asked Stanley Applegate, USC Systems Vice-President for Sponsored Projects and Research, and John Vernberg to consider the possibility of a working relationship with Georgetown County in aquaculture, given the location of the Baruch Institute there. The response was immediate, with the creation of The University of South Carolina's Coastal Aquaculture-Mariculture Project (CAMP). Jesse Chappell of the Baruch Institute was retained to be the Resident Director of the project in Georgetown; Keith Taniguchi, also of Baruch, was identified as the Research Associate for Scientific Management; F. Jerry Ingram of USC's Real Estate faculty; Vernberg; Applegate; and Ardis Savory, Acting Director of the Grants Division of the USC office of Sponsored Projects and Research, rounded out the team. This combination suggested that a variety of disciplines should be involved in a full-scale evaluation of aquacultural potential.

S.C.A.M.P.I.

The development commission next looked at export (out of county and out of state) opportunities, as well as local consumption, as possible ways to create jobs and enhance the tax base. An export program for Georgetown County, when production volumes become significant, could service, first, the Low Country; then the larger cities within the state; and, ultimately, the Eastern Seaboard and overseas. Aquacultural production from throughout South Carolina could, therefore, enhance the economic well-being of the entire state.

We created S.C.A.M.P.I., an acronym for the South Carolina Aquaculture-Mariculture Program International, to serve this purpose. The combined resources of various state agencies and educational institutions in the state offer a technical service commodity of tremendous potential. Extended involvement in the provision of such services could strengthen South Carolina's scientific and educational posture internationally and become an export service of modest significance to the state's economy and prestige. S.C.A.M.P.I. projects, which have already been initiated by The University of South Carolina, are an extension of the resources of the state to provide technical and professional services to foreign governments and their respective educational institutions and agencies, which serve both public and private interests within those countries.

Understanding and Appreciating Aquacultural Responsibilities

To increase our understanding of aquaculture, the development commission sponsored a series of learning opportunities. We created a special program, held at the Baruch Institute, for local property owners, bankers, and others on the fundamentals of crawfish production. This resulted in recommendations for a workshop on crawfish marketing, which was conducted. As a result of that meeting, the Seafood Marketing Services Section of the Department of Wildlife and Marine Resources was asked to consider conducting an initial marketing study to identify potential consumers for the early products of an emerging crawfish program.

Another facet of aquaculture relates to the broad and diverse requirements of the various permitting or review agencies. In the spring of 1983, the development commission sponsored a seminar on review and permitting requirements producers would have to follow. The South Carolina Sea Grant Consortium is preparing a summary document on the permitting requirements of South Carolina agencies that may clarify procedures and provide evidence that the permitting process should be consolidated.

The development commission also assumed the responsibility of informing interested property owners and investors about the risks associated with aquaculture, the impossibility sometimes of buying appropriate lands, the need to manage properly, the potential of disaster, variations in market conditions, and other related influences on production and marketing.

Economics and Marketing

In the spring of 1982, the development commission requested the Division of Research of the College of Business Administration at The University of South Carolina to undertake an assessment of the economics of aquaculture in South Carolina, including the development of an econometric model. That assessment and model are now realities.

The model will provide a vehicle for analysis of site specific project proposals, and will receive current economic data on site preparation, feed, chemicals, equipment, management, and other related costs. This information will then be used to

"The committee believes the potential for aquaculture exists not only in Georgetown County but also throughout the state. We also believe South Carolina needs to develop an aquacultural policy."

produce printouts of economic findings per project for potential entrepreneurs.

A refinement of the model was made to permit the computer to select random variations of costs. Such findings are necessary for the consideration of the individual or group exploring the possibility of an aquacultural project.

Subsequently, the South Carolina Coastal Council authorized the funding of an evaluation of the economics of aquaculture with the collective involvement of the Division of Research of the College of Business Administration at USC; Clemson University; The South Carolina Budget and Control Board; the South Carolina Wildlife and Marine Resources Department; and the South Carolina Sea Grant Consortium. Their findings should be most helpful to private enterprise interests.

Management and Technical Training

IN late 1981, the development commission approached the South Carolina Private Industry Council and the CETA Division of the Governor's Office for a CETA grant to develop and administer an aquacultural Field Technicians' Training Program. The grant application was approved, and the Georgetown campus of Horry-Georgetown Technical College conducted the program in the spring of 1982.

This joint effort by the development commission and Horry-Georgetown TEC was supported by professionals from aquaculture-related disciplines in the agencies and educational institutions of the state. The technical training program was designed to provide basic skills to those who would support management in field operations. The result is that this program, as designed, can be put in place in any TEC school in South Carolina.

Observations and Recommendations

Our aquacultural experience produced a number of observations. The following recommendations are made in an attempt to create an aquacultural policy for South Carolina, and to utilize more effectively the technical resources of the state for private enterprise purposes.

1. South Carolina needs a statement of aquacultural policy, which could be the point of departure for the creation of an aquacultural plan for the state.

2. Aquacultural research in South Carolina should be strengthened, with an emphasis on applicability to commercial production in saltwater and freshwater for local consumption and for future export from South Carolina.

3. Activities such as those engaged in by the Seafood Marketing Services Section of the South Carolina Department of Wildlife and Marine Resources should be strengthened to anticipate a continuing increase in production. Joint efforts with the South Carolina Department of Agriculture would be beneficial.

4. As the result of the creation of a state aquacultural policy, initiated by the Governor and endorsed by the State Legislature, various state agencies could adapt internal programs to implement that policy.

5. State enabling legislation should be adjusted, through new legislation and/or amendments to existing legislation, to facilitate the implementation of state policy, when developed.

6. To accommodate private aquacultural interests, a simplification of South Carolina permitting procedures should be effected. This is not to suggest reducing any reasonable and necessary standards for aquacultural production, but, rather, to create a less cumbersome permitting process than currently exists.

7. If a state aquacultural policy were adopted, an Office of Aquaculture could be created by the Governor. This would provide direct liaison between the Governor's Office and the various educational institutions and state agencies involved in, or related to, aquaculture and mariculture.

8. Aquaculture should be classified as a branch of agriculture. The areas of involvement and services extended by the South Carolina Department of Agriculture, therefore, could be expanded to include aquaculture. Within the Department of Agriculture, an Aquaculture Board could be created to monitor legislative needs, advise the Governor on production and export potential, and provide an overview on the many aquacultural interests and activities throughout the state.

9. At the county level, attention should be focused on the emergence of aquaculture. Comprehensive plans and zoning ordinances should be

"If the majority of private initiative efforts are frustrated constantly, the state will miss an opportunity to begin a meaningful aquacultural program. The alternative is to wait 10 or more years and be forced to turn to the water as a source of foodstuffs in an emergency."

amended to include statements of aquacultural purpose, supported by plans and standards for the implementation of such uses where appropriate.

10. South Carolina should not overlook the opportunity of providing technical services to other countries, and interests within those countries, throughout the world, as initiated by The University of South Carolina. This is the real objective of S.C.A.M.P.I.

11. Issues that can be qualified and treated separately should be removed as obstacles to the otherwise practical implementation of aquaculture. The issue of current ownership of previously impounded rice fields, for example, does not affect the scientific and economic feasibility of aquaculture on a given site. While the ownership issue is under consideration, permits for the use of the water column could be issued by appropriate authorities in the state without prejudice to the question of ownership, thus resolving implementation roadblocks.

What the State Needs

SOUTH Carolina needs not only an aquacultural policy, but also the help and support of people at the county level to initiate private enterprise aquacultural projects. If the majority of private initiative efforts are frustrated constantly, the state will miss an opportunity to begin a meaningful aquacultural program. The alternative is to wait 10 or more years and be forced to turn to the water as a source of foodstuffs in an emergency.

We have the opportunity now to avoid the emergency situation by creating an aquacultural policy and moving cautiously into the planning and development of an implementation program. If South Carolina will develop the policy, coordinate the available resources, provide the technical assistance, effect a simplified permitting procedure, and lend encouragement, then private enterprise will implement economically feasible projects. The results will enhance the tax base, create job opportunities, and provide the state with additional export opportunities — both food products and technology.□

Entrepreneurs in the Fish-Farming Business

Jerry Fortenberry used to be a research biologist. Ronny Hutto is a real estate executive. Both men are engaged in one of South Carolina's newest industries: aquaculture.

Jan Collins Stucker

UNTIL last year, Jerry Fortenberry spent his working hours as a research and development specialist for a Spartanburg area company that manufactured powdered metal. Since May 1982, however, the 34-year-old biologist has been an entrepreneur in the aquaculture, or fish-farming, business.

As co-owner and President of the upstate-based Spartan Enterprises, Fortenberry grows catfish and rainbow trout in several small ponds and a hatchery, then sells the seafood to the public via a "fish out" pond — a stocked pond where people are provided rods and bait. Customers doing this "recreational fishing" pay by the pound, only for what they catch.

Fortenberry, who is also President of the newly-formed South Carolina Catfish Growers Association, is one of several dozen Carolinas business people who have decided to invest in aquaculture. At present, it's an industry that consists primarily of small, family-run operations that specialize in the growing of trout, oysters, clams, crawfish, salmon, shrimp, or catfish. Although large-scale fish farming isn't yet a reality in most states, it's projected to grow swiftly by the end of the century.

Jan Collins Stucker is Editor of the *Business & Economic Review*. A former reporter for newspapers in Michigan and South Carolina, Ms. Stucker also was a business writer for *The Charlotte Observer*. She is a correspondent for *The Economist* of London, and is a free lance writer for a number of business publications. She studied business and economics at Harvard University in 1979-'80 as a Nieman Fellow.

Expected Profits

Fortenberry hopes to cash in on some of those expected profits. "If I didn't think it was going to work out, I wouldn't have left a fat-cat job working with test tubes to do this." He has sunk about $10,000 in aeration equipment, fishing rods, leased ponds, and advertising, and expects to begin turning a regular profit later this year. "You have to figure no profits for the first year," he says. "But after that, if it's a well-run operation, you should begin making some money." (According to an econometric model built by The University of South Carolina College of Business Administration, aquacultural profits in the United States can range up to 35 percent. Experts say aquaculture costs between $500 and $800 per acre.)

Fortenberry, a graduate of The University of South Carolina at Spartanburg, has started out slowly. He, a partner, and two employees produce only about 1,000 pounds annually of catfish and rainbow trout, although he says he could sell "3,000 or 4,000 pounds of catfish a week if I could get it." The fish, which are fed a pellet-type food consisting of grains, vitamins, and soy, are grown in three small ponds in his yard, and also in a hatchery. Fortenberry does plan to expand, however. He's now looking for "some land at a decent price" on which to place additional ponds or hatcheries for growing more trout and catfish, as well as yellow perch, bass, and bream.

He sees a "big demand" for more "fish out" ponds like the one he operates on Highway 29, 11 miles east of Greenville. Called Chick Springs Family Fishing, the pond is a favorite for area families who get tired of fishing all day at regular lakes and coming home empty-handed. "I have people who come here and tell me they don't like catfish," Fortenberry says. "But that's because they've only tasted wild catfish or imported Brazilian catfish, which aren't very good." So he offers his customers a refund if they don't like the catfish caught at Chick Springs. So far, no one has taken him up on the offer.

Not all the commercial aquaculture now in progress in South Carolina is done by **small** entrepreneurs. Trident Farms Co. of Charleston and Folly Beach, incorporated in 1980, is a fairly large operation that grows hard clams. H.Q.C.L. "Harry" Clawson,

Jerry Fortenberry at his "fish out" pond near Greenville, South Carolina.

head of the privately-held firm, says it's "too early to say" whether his company will be a financial success, since the first large-scale harvest was produced only a few months ago.

A Georgetown Entrepreneur

To date, however, most of the fish-farming being done commercially in the state is the work of entrepreneurs — many of them in the coastal area near Georgetown. Ronny Hutto, a 34-year-old real estate broker who decided to go into the crawfish raising business part-time in 1982, is one of them.

In 1959, Hutto's father bought an old rice plantation called Keithfield, located on the Black River in Georgetown County. The plantation's 200 acres of impoundments had been used to grow rice in the 18th and 19th centuries. Ronny Hutto, who was looking for ways to make the plantation profitable again, decided the abandoned rice fields were perfect for growing crawfish. He began rediking 10 acres of the plantation in 1982. Last spring, Hutto went to Louisiana to purchase crawfish breeding stock, which he released into the ponds at Keithfield on May 1, 1983.

When he harvests his first crop in early spring 1984, Hutto hopes to reap between 1,000 and 1,500 pounds of crawfish per acre. Within 3 to 5 years, he wants to have all 200 acres at Keithfield in crawfish production. Eventual plans are to ship the crawfish as far away as Baltimore; Washington, D.C.; New York; and even Chicago. To do that, he will need a bigger staff. Currently, there's just Hutto and one part-time employee.

Hutto is candid about the difficulties and risks of crawfish farming. "It's not for everybody; it's a very demanding business." The primary risk, from a business point of view, is lack of expert management, according to Hutto. "Don't put a lot of dollars into aquaculture if you're going to manage it yourself as a hobby," he warns. "You need a good, professional manager to make money" on a large scale. The amount of capital needed, he stresses, varies with one's original resources. If you already own the land (as his family did) and some equipment (an added bonus), start-up costs can be reasonable, and a profit can be turned after approximately a year.

Within a year or two, Hutto hopes to be making double-digit returns on his investment. At the moment, however, he and other aquacultural entrepreneurs in South Carolina are making just the first splash in the commercial waters of the fish-farming business. □

Ronny Hutto prepares a crawfish pond at Keithfield Plantation.

"Within 3 to 5 years, Hutto wants to have all 200 acres at Keithfield in crawfish production. Eventual plans are to ship the crawfish as far away as Baltimore; Washington, D.C.; New York; and even Chicago."

What Aquaculture Is All About

•Aquaculture may become the most productive "protein delivery system" in the United States within the next two decades. The industry today is experiencing exciting breakthroughs in technology which will make commercial cultivation of many desirable species of fish and shellfish possible in the coming decade.

•The major problem facing the aquacultural industry today is lack of capital to support fledgling enterprises and much needed research and development programs . . .

•Many corporations are beginning to enter the aquacultural industry. Coca-Cola, Ralston Purina, and General Mills are active in shrimp farming and shrimp farming research. Weyerhaeuser and Campbell Soup are leaders in the ocean ranching of salmon in the Pacific Northwest, and ConAgra is the acknowledged leader in the United States catfish farming and processing industry.

•The aquacultural industry in the United States seriously lags behind those of other countries, and in order to meet domestic demand, we rely heavily on imports which supply 60 percent or more of our fish. This reliance on imports has negatively affected our balance of payments — one of the major reasons why the government is now stepping in in an attempt to spur industry growth and expansion.

•Americans are not traditionally a nation of fish eaters. Our consumption of fish, which has been rising slowly over the past 15 years or so, is currently about 13 pounds per capita annually, compared to more than 180 pounds per capita of meat consumption. There are indications, however, that with continued consumer education, this situation can be significantly improved. As Americans become more nutrition and health conscious, they are better able to appreciate a food low in fat and calories, high in protein, and, in some cases, economical in cost, compared to beef.

•Catfish, a tasty fish that is relatively economical to produce, could, under more favorable market conditions, be a major protein resource in the United States.

•Crawfish culture has been very successful in Louisiana and Texas. [But crawfish] are little known outside Louisiana, and a market is yet to be developed outside of the region where the fish have been a tradition for a hundred years.

•Shrimp, lobster, abalone, and other luxury food species do not figure substantially, as yet, into our forecast of aquaculture as a major protein delivery system by the end of this century.

•Aquaculture, a potential $1.6 billion industry by the year 2000 (in 1980 dollars), is clearly an industry that requires close watching over the next 5 to 10 years. □

Excerpted from *Status of Aquaculture in the U.S.*, published in June 1981 by FIND/SVP, a New York City research firm

B&E Business & Economic Review

Tax Strategies for the '80's

James Edmunds Wilson

Tax Planning Potpourri

Clients often come to my office with the idea of implementing some single tax planning strategy or device, sometimes to the detriment of other areas of their financial well-being. A good example is overinvesting in tax shelters to the exclusion of more liquid conventional securities such as stocks and bonds. This creates an inflexible financial and tax strategy, very dangerous for today's ever-changing economic environment. Successful tax planning usually involves implementing more than a single strategy.

Tax/financial planning should be approached from a macro perspective, that is, looking at the big financial picture, not merely one segment. Your action (or inaction) in one area necessarily affects the remainder of the whole. The principal objective of tax planning is to maximize after-tax income, not minimize tax liability. At first blush, these objectives appear to be identical, but they are not. Targeting the correct objective can be an excellent start for your personal or corporate tax planning.

Tax Planning Strategies

With this under your thinking cap, the next step is to separate your tax planning strategies into those affecting you short-term, intermediate-term, and long-term. If you have a high income year but do not expect the year to repeat itself, it would make little sense to purchase tax shelters that create deductions over a several year period.

One of the more obvious tax planning strategies is the deferral or postponement of the receipt of income and therefore the accompanying tax liability. Because of our graduated tax rate structure, it is sometimes advantageous to defer incremental amounts of income being taxed at high marginal rates into less taxing years. However, this task is easier said than done. In general, a cash basis taxpayer recognizes income when it is received. If you have access to the income but decline to accept it, the IRS is likely to tax you on it anyway under the "constructive receipt doctrine." Service businesses, professionals, and others on a cash basis can defer income by not billing until the next tax year.

Another strategy to defer interest earnings into the next year is to purchase savings certificates, treasury bills, or federal agency notes which mature into the following tax year. The interest you would have received will not be taxed until next year.

The other side of the deferral-of-income strategy is the acceleration of deductions into the current tax year. As with the recognition of income when received, deductions are recognized when paid by cash basis taxpayers. Specific examples include paying expenses with credit cards (considered paid when charged), electing the accelerated form of depreciation on property or equipment, and making regular charitable contributions in advance.

A fifth tax-planning strategy is converting ordinary income into more favorably taxed capital gain income. Long-term capital gains are taxed at a maximum effective rate of 20 percent, compared to a 50 percent maximum tax rate on ordinary income. This usually involves investing in appreciating capital assets (such as real estate) which may provide somewhat nominal income during the holding period but possess the advantage of having the gain taxed at lower rates upon disposition. Also, some corporate executives have the ability to convert ordinary income into capital gain through the acquisition of qualified incentive stock options.

Another tax planning strategy similar to income deferral is income shifting. The idea here is to shift income to children or others in a lower marginal tax bracket, thereby accomplishing a particular financial objective with fewer actual dollars. Among the most widely utilized methods of income shifting are interest-free loans, trusts, and outright gifts. Let's take a brief look at each method and its consequences.

Interest-free loans oftentimes are used to finance a child's education. The parent lends to the child (or, preferably, to a trust) an amount of money secured by a demand note. This money is very safely invested, and the investment income is taxable to the child (or trust). When the child is through with college or whatever, the loan principal is repaid to the parent. Although this sounds simple enough, successfully utilizing interest-free loans is far from being a simple process. Although six federal circuit courts of appeal have sided with taxpayers in disputes with the IRS over this issue, it is not without risk from a tax planning perspective. However, the potential benefits may be great enough to invest the time and effort required to implement this strategy correctly. Of course, expert professional assistance is necessary prior to embarking on an interest-free loan strategy.

The Clifford Trust (or short-term

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Business & Economic Review

Information Technology Trends

N. Jane Williams

Training Is a Necessity, Not a Luxury

Information technology (IT) has been advancing by leaps and bounds the past few years. Businesses realize that in order to be competitive in their fields, they must be aware of, and, if possible, internally implement, the latest technologies. The big question is how businesses can stay abreast of these rapid changes. One answer is training.

Employee training for all areas of IT, including data processing, office automation, and communications (voice, video, data, and radio), has become a necessity for businesses. This training must not only include "beginner's," but also continuing, education. It has been estimated "that by 1990 the average adult professional will need some type of retraining every four to five years."[1]

Profitable businesses no longer can afford to view employee training as a luxury. Rather, they must consider it an investment in the future of the organization.

There are four good reasons for providing IT training for employees.

1. *The use of technology is expected to grow.* Look around you: computers are everywhere! Firms are becoming increasingly dependent on technology to carry out their daily operations. Statistics abound on the extensive current and projected use of IT. A recently completed survey of several hundred small businesses conducted by Quantum Science revealed that 72 percent of those enterprises with 100 to 250 employees had an in-house small business computer.[2] *Desktop Computing* reports that

> The computer market will continue to grow at a rate of 70 percent annually through 1987 . . . The nation's top 6,000 construction contracting firms will spend $31 million annually for computers and software in the next five years . . .[3]

International Data Corporation projects that 2,400,000 word processors will be installed in the United States market by 1986, compared to 600,000 installed in 1981.[4] Desktop computers will zoom from 1,250,000 in 1981 to 14,700,000 in 1986. Computer terminals are expected to reach 19,100,000 in 1986, compared to 6,900,000 in 1981.

2. *Information technology can increase productivity.* The use of technology can have a positive impact on an organization's productivity. Large administrative systems like finance and personnel can be managed more easily. The use of IT also can enhance managerial decision making by providing a greater amount of more timely information. Savings in personnel costs can result from the use of IT if either the current number of personnel required is reduced or the need for new personnel is eliminated. In addition to those quantifiable benefits, qualitative benefits, such as increased accuracy, comprehensiveness, and timeliness of data, also can be realized.

3. *Technology is changing constantly.* Because of the rapidly occurring changes in this field, training cannot be a one-time activity. Retraining will be necessary to keep personnel abreast of the state of the art.

4. *Employee morale and job satisfaction will increase.* Employees expected to use technology without proper guidance or without knowledge of the purpose of the technology will become frustrated, apprehensive, and dissatisfied with their jobs very quickly. Businesses that plan to implement or expand their use of technology should inform all affected personnel and give them a reasonable amount of time to learn to use the new material. Without proper training, technology cannot be utilized to its maximum potential, and a negative impact on productivity will result.

Training Is for Everyone

Technology is available for use by just about everyone in an organization. In addition to technical personnel, executives, managers, professionals, secretaries, and clerks can now use technology to meet their various information processing needs. Executives, managers, and professionals can benefit from the use of personal and professional computers, and multifunction work stations and word processing units can make life easier for secretaries and clerks.

Even individuals not actually using equipment themselves are most likely affected by someone who is. An example would be a boss whose secretary uses word processing equipment. If the boss, however, has no understanding of the capabilities of the system, he may make unreasonable requests of its performance. Or, conversely, he may not take full advantage of its capabilities.

Where to Go for Training

Many businesses choose to develop their own internal IT training and continuing education programs. If, however, you cannot do that, do not despair. There are various external training sources available. These sources provide training in the use of equipment, "concepts," and management issues.

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N. Jane Williams is an Information Resources Specialist for the Institute of Information Management, Technology and Policy in the College of Business Administration at The University of South Carolina. Specializing in management issues related to information technology, she coordinates the institute's training program, and recently served as project manager of a study to develop an information resources training program for South Carolina state government.

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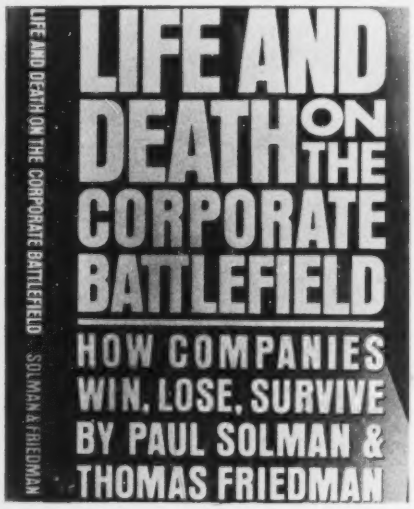
Books


LIFE AND DEATH ON THE CORPORATE BATTLEFIELD
HOW COMPANIES WIN, LOSE, SURVIVE
BY PAUL SOLMAN & THOMAS FRIEDMAN
LIFE AND DEATH ON THE CORPORATE BATTLEFIELD SOLMAN & FRIEDMAN

Life and Death on the Corporate Battlefield: How Companies Win, Lose, Survive

By Paul Solman and Thomas Friedman
Simon and Schuster, Inc., 1983, $13.95

The reviewer, **Eric Best,** is City Editor at the *Stockton* (California) *Record.* He was a Nieman Fellow at Harvard University in 1982-'83. This review was published originally in the Summer 1983 edition of *Nieman Reports;* it is reprinted here with permission.

When the smoke clears on the corporate battlefield, irony wins. Stock analysts cannot perform their ascribed function (to ferret out the truth and tell it for others' profit) because insider trader laws prevent it. Managers cannot perform on the basis of long-term value and conviction, for they are prisoners of short-term self-interest, the Achilles heel of capitalism. Bigness, rather than guaranteeing success, encourages stasis, resists new ideas, and promotes risk minimalization, the myopia of corporate vision.

Little wonder that authors Paul Solman and Thomas Friedman, who now produce and edit "Enterprise," the PBS television documentary on business, conclude their commendable description of business-as-it-is-taught-and-practiced with this whimper:

> A brilliant strategy may prevail in one instance and a brilliant product may spell victory in another, but behind the bottom line, there are many more crossed fingers than the traditional view of business would lead us to believe.

So the book ends with a thud, intellectual hands thrown in the air to the mysteries and unpredictability of business. Still, the body of the book should have practical value for many. Corporate managers may rethink their pasts and take a different view of their futures. Would-be entrepreneurs may anticipate pitfalls that might have swallowed their dreams. Professors and students of journalism, and particularly business reporters on the beat, will find a treasure of story ideas and angles for hometown enterprise.

The style reflects the case study method of Harvard Business School where Solman spent most of his Nieman year. In 234 anecdotal and breezily written pages, the reader will encounter among others, the Gillette stab at a new disposable razor and a would-be Killer Bee honey importer, who got stung. After the authors' somewhat weak conclusion — one among a handful of duds in the text — the immense sprawl of business in contemporary America has been informatively sketched if not painted in depth. For anyone who wants to gain a number of important insights without actually attending Harvard or any other business school, this book is a quick and useful way to do it. It should have particular use for public officials trying to catch up to the rising debate over "industrial policy" in America, since government regulation so easily brings life and death to corporate America. This point, clearly made by the authors, resounds through the text like a resurgent gong of free enterprise.

Hardly a concept of current business practice goes unaddressed. Motives behind the controversial battle between Mobil Oil and U.S. Steel to take over Marathon Oil emerge as an exercise in practical accounting. Economies of scale — a linchpin in America's postwar prosperity and now a form of dry rot in a number of major industries — are lucidly explained and numerically illustrated with the precision that is supposed to guide the "scientific management" of today. From a corporate strategy consultant, a former stock specialist, a venerable venture capitalist, and, one presumes, a host of business school case studies (there are no footnotes), the reader gets an academic and practical view of takeover synergy, market positioning, product portfolios in diversification, market niches, and the experience curve. And major ethical and social issues in corporate America, including what has come to be known as "paper entrepreneurialism," emerge as much from what is not said as what is.

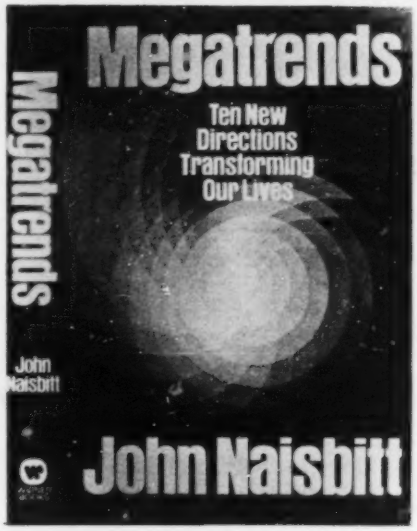
There is no attempt to moralize about business practice in corporate America. It seems the authors, who nurtured their early journalism-business careers at Boston's now defunct *Real Paper,* have adopted a pragmatic, if not entirely mainstream, view of business as it is and must be. In one slightly overwritten chapter about the demise of the *Real Paper,* marital infidelity at high levels unraveled the spirit of democratic capitalism. Here the authors defrock themselves as egalitarian capitalists to embrace the more conventional

notion that business, to be successful, must take its cues from profit. There is little room for experimentation in this world of bottom lines. The authors conclude that whatever the ills of autocracy and vertical organization, they offer the best of what is possible. In that sense, perhaps, *Life and Death on the Corporate Battlefield* is another guide up the organization.

Beneath the test, however, reverberates a beat that all is not right with corporate America. The dominant force not only in commerce but also in social influence is pictured as an increasingly mechanistic system where short-term profiteering, pursuit of self-interest, and managerial loneliness strip the business community — and American society itself — of their humanity. The world of the manager is seen as "a mathematical regimen as far from the impulses of John D. Rockefeller as it is from those of Napoleon." Individual insight and the passion of whoever provides the capital have given way to cold technocracy. The unknowns abound and surround, as this passage suggests:

> Managerial self-interest increases the uncertainty of the corporate battlefield, which in turn fosters more self-interest. It's a vicious circle. If the future of a company is uncertain, it follows that the future of the average manager is uncertain as well. Business downturns or changes in top management, shifting corporate priorities or technological advancements,mergers or acquisitions can all jeopardize a manager's position. Consequently, many executives feel they must always look out for themselves. Just as the uncertainty of the economy promotes short-term corporate thinking (a company can hardly make reasonable long-term plans if it doesn't have the slightest idea what the future will bring), uncertainty also aggravates the problem of managers thinking short term when it comes to their professional — and emotional — commitment to their firms. Small wonder that many managers put their personal interests first. It may not be "rational management," but it is understandable.

What is less understandable — or at least less knowable — is whether the American business environment will ever transcend this state of cutthroat pragmatism, management by the numbers and random chance. The authors do not address the future of corporate America and the atmosphere in which entrepreneurial capitalism will flourish or falter. This is not a critique of American business values, but a handbook on the business teaching according to Harvard Business School. It is, therefore, more mechanistic than value laden, more concerned with winning and losing than how the game is played. It is a Darwinian battlefield where the fittest, if not the fairest, tend to survive. It is a field where most of the country plays and like it not — where the growth or stagnation of the American economy will be decided. So it is well worth a walk through this characterization of American business to touch our commercial heart and mind — perhaps even our soul. □



Megatrends: Ten New Directions Transforming Our Lives

By John Naisbitt
Warner Books, 1982, $15.50

The reviewer, **Alan D. Bauerschmidt,** is Professor of Management in the College of Business Administration at The University of South Carolina. His special interests include managerial planning and technological forecasting.

John Naisbitt is a social forecaster whose job is predicting the business future for businessmen. He predicts the unfolding future by analyzing news articles in 6,000 newspapers across the United States. Each day his staff sorts the content of 500 articles into 200 topical categories to obtain the grist for the quarterly updating of his *Trend Report* to subscribers.

The general public and others who can't afford his subscription fee now can learn Naisbitt's insights into the future of America by reading *Megatrends: Ten New Directions Transforming Our Lives.* Since it was published last year, *Megatrends* has climbed to the top of the various best seller lists and become an offering of both general and business book clubs. The popularity of this volume during a period in which most business indicators were trending downward is a result of the generally upbeat conclusions of the author. While his trends may be upsetting because they necessarily involve change, Naisbitt is still essentially optimistic and captures a theme of revealed opportunity in his final sentence: "My God, what a fantastic time to be alive!"

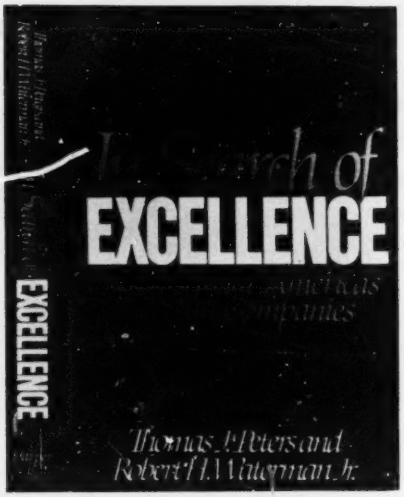
Each of the book's 10 chapters addresses one of the trends restructuring America. These trends include shifts from an industrial society to an information society, and from a society in which technology is imposed on the public to one in which advanced technology is shaped to the human dimension. Naisbitt also detects trends from a national economy to a global economy, and a business world in which managers focus on long-range consequences, rather than emphasizing short-term results. He reports an essential trend throughout our society toward greater decentralization of political and business decision making, accompanied by a shift toward greater individual responsi-

bility and away from reliance on institutions and large organizations for the necessities of living.

Accompanying these trends are other drifts toward greater direct participation by individuals in matters that count, and a willingness to work with others, rather than leaving decisions to elected officials or taking direction from some designated superior. Naisbitt also reports a trend toward individuals' having many options as life unfolds, in contrast to an existence of forced decisions among limited choices.

One trend reported by Naisbitt must be singled out for elaboration. He perceives the shift in population and industry growth out of the North and toward the South. In his scheme, the South is a region extending from California to Houston. He also includes the Gulf Coast of Florida as a recipient of the benefits of growth and prosperity. These shifts are an aspect of the trend toward greater decentralization of activity, plus a resurgence of entrepreneurship rekindled in America's remaining frontier.

As for the "Old South," Naisbitt thinks its growth peaked in the industrialization of the 1940's and 1950's. The Old South doesn't contain the educated labor force to staff the knowledge industries that make up the emergent trend, he says.□



In Search of Excellence: Lessons From America's Best-Run Companies

By Thomas J. Peters and Robert H. Waterman, Jr.
Harper and Row Publishers, 1982, $19.95

The reviewer, **J. Carl Clamp,** is Distinguished Lecturer in Management in the College of Business Administration at The University of South Carolina. Formerly President and a Director of United States Filter Corp., where he held the full profit and loss responsibility for that company's worldwide operations, he also has held corporate executive positions at International Telephone & Telegraph Corp., Allis-Chalmers Corp., and General Mills Inc.

For much of 1983, this book by Peters and Waterman has been on the *New York Times Book Review* Best Sellers, Nonfiction, list, and in recent weeks has occupied the Number 1 position. Not only has this volume been read widely by executives, it has also received attention in academic circles where business scholars have the responsibility of training the managers of tomorrow. As a consequence, it is appropriate to examine objectively such a commercial success.

Based on its title, and particularly its subtitle — "Lessons from America's Best-Run Companies" — one can logically infer that the ambitious American manager can read this book, learn its lessons, and move his company toward excellence! If such were the case, then *In Search of Excellence* **should** be Number 1, joining the perennial "how to" best sellers exemplified by such leaders as *Jane Fonda's Workout Book,* Herman Tarnower's *The Complete Scarsdale Medical Diet,* and Alex Comfort's *The Joy of Sex,* among others. Much to this reviewer's disappointment — as a retired American executive — Peters and Waterman don't tell us how to *achieve* this excellence.

This book has been snatched up by America's harassed managers in an effort to find a solution to the poor performance of their companies in recent years, and to offset the doom-and-gloom pronouncements about the decline in productivity and quality in American industry. We have been blessed with great natural resources, the most stable political system in the Western world, a well-educated population, and a strong dollar. Despite these advantages, however, American industry has found it more and more difficult to compete internationally, and there is an alarming presumption that our management weaknesses are to a significant degree responsible for this poor performance.

Continuing this train of thought, United States managers just aren't as proficient as Japanese and many European managers. Further, the best business schools have emphasized principles, measurement, and rational analysis, rather than the inspiration and motivation that lead to the experimentation and action that result in successful companies. Short-term profit preoccupations negate the investment and patience needed to produce excellence. Little wonder, then, that American managers feel besieged!

Peters and Waterman take a strong contrary position that we don't have to look to Japan to find a solution to the problems of poor performance. They believe that "it can happen here," citing the fact that, for years, top performing United States companies have been shining examples of how to create and maintain, over time, effective, profitable organizations exemplifying excellence. So what are they doing right?

Following extensive structured interviews at, and exhaustive literature review of, leading United States corporations — including Amdahl, Bechtel, Boeing, Caterpillar Tractor, Delta Airlines, Digital Equipment, Eastman Kodak, Hewlett-Packard, IBM, Johnson & Johnson, 3M, McDonald's, Procter & Gamble, and Texas Instruments, among others — the authors have identified eight characteristics of the excellent performers. These attributes are measured by such indications of long-term superiority as asset and equity growth, returns on total capital and equity, and industry rankings. Simply stated, what are the things the "excellent"

companies do better than anyone else?

1. *They act.* There is no "paralysis by analysis," implying a willingness for broad experimentation and a willingness to accept failure while hoping for the brilliant success. There is a premium on simplicity, small corporate staffs, and one-page memos.

2. *They stay close to the customer.* Emphasis is placed on service, reliability, and quality — often at a short-term penality on profits.

3. *They encourage autonomy and entrepreneurship at all levels.* Profit centers tend to be small and authority decentralized.

4. *They sincerely believe that productivity comes only through people, requiring a demonstrated respect for the individual.* Information is widely shared.

5. *They see management's role as shaping and fostering basic values, requiring a "hands-on" management style that leads to a strong corporate culture.*

6. *They don't get involved with businesses they don't understand.* They stick to activities they know well, and few are broadly diversified.

7. *Their organizational structures are simple, without the involvement of many layers of endorsement before actions can be implemented.*

8. *They follow rigidly the dictates of key values, but allow their managers to be creative and innovative in adhering to such values.* Individual accomplishments are widely recognized. People are thus made to feel good, and they continue to excel.

Peters and Waterman conclude their "lessons" briefly with a suggested theory of management for the future that will provide for three prime needs: stability and efficiency around the basic values; regular innovation; and a willingness to break old habits and respond to change of any sort in the environment. The obvious conclusion to be drawn is: follow the practices of the excellent companies and your company, too, will become an excellent company. Unfortunately, this is not likely to happen in most circumstances, and the advice of the authors could be considered downright misleading.

A dynamic, pervasive corporate culture certainly produces the atmosphere and relationships that lead to excellence, but without major exceptions, this culture has been fostered by *exceptional leaders.* The basic character of these excellent companies has been fashioned over the years by such men as Thomas Watson of IBM, Robert Johnson, Bill Hewlett and David Packard, Ray Kroc of McDonald's, Patrick Haggerty of Texas Instruments, William Procter and James Gamble, Steve Bechtel, and their counterparts. Without such dominant personalities, strong corporate cultures would be few. Simply copying Peters' and Waterman's eight attributes is not likely to produce the excellence so highly praised. The requisite values are deep-rooted and have been developed over extended periods of time. The route to such a corporate culture is not clearly defined, and there is no shortcut to success.

The authors might have rendered service to their readers by pointing to the fragile nature of excellence and its perishability. The recent disappointments of Texas Instruments, Eastman Kodak, Revlon, and K-Mart, among others, testify to the hazards inherent in today's corporate environment.

So *In Search of Excellence* can be disappointing and misleading in its advice to American managers. Peters and Waterman have told us much about excellence in American management, and as a review of specific corporations, their book certainly is interesting reading. It's Best Seller ranking, however, should not be based on "how to" achieve excellence. □

Books Briefly

Compiled by Dwight Gardner, Business Librarian, College of Business Administration, The University of South Carolina.

Mergers, Acquisitions, and Divestitures: A Guide to Their Impact for Investors and Directors

By Thomas Hopkins
Dow Jones-Irwin, 1983, $17.95

Here the author explores the issues surrounding the decision of one company to acquire another, or to sell part of its business. He emphasizes that the value of the newly created entity must be greater than the value of the separate firms for the merger or acquisition to be justified. The case history of the purchase of Conoco by DuPont is used to demonstrate the effect of such transactions on stockholders and management.

Advertising Answerbook: A Guide for Business and Professional People

By Hal Betancount
Spectrum Books
Prentice-Hall, 1982, $16.95

This nontechnical guide is designed for those with limited experience in the advertising field. It concentrates on the basics: choosing an agency, planning a budget, producing an ad, and selecting and using media resources. Also included is a question-and-answer section on common advertising problems.

Breaking up Bell: Essays on Industrial Organization and Regulation

Edited by David Evans
North-Holland
Elsevier Science Publishing Co., 1983, $25.00

This book offers an economic analysis of the antitrust case brought against America's largest corporation. It explores the impact of the settle-

ment in which AT&T must divest itself of over half its assets and the implications for the telecommunications industry. These essays were prepared by the economists who acted as consultants to the Justice Department during the case.

"Do It My Way or You're Fired!"

By David Ewing
John Wiley & Sons, 1983, $17.95

This author discusses the changing role of management's prerogatives in dealing with employees. Covering employees' rights from the time they're hired until they leave the organization, it also examines the issues of employees reporting the questionable activities of their employers, i.e., whistle blowing.

Office Automation: A User-Driven Method

By Don Tapscott
Plenum, 1982, $27.50

This book shows how to analyze your organization's needs and match them to available office systems technology. It stresses the design of office systems that most effectively utilize technological advances for increased productivity. It also contains an excellent bibliography of office automation for continued study.

The Emerging Business: Managing for Growth

By Seymour Jones and Bruce Cohen
John Wiley & Sons, 1983, $24.95

This guide to running a small business is both timely and practical. It covers a wide range of topics, including accounting systems, budgeting, micro computers, tax planning, and going public. It also contains a detailed sample of a corporate financing plan which serves as an excellent model of what many banks require from a business seeking a loan.□

Continued from p. 31

trust) is also appropriate for financing a college education. Income producing assets or property are transferred into the trust (usually set up for 10 years and 1 day) for the benefit of the child. Since the trust has its own tax bracket (and exemptions), the income likely will be taxed at a much lower rate than yours. At the end of the trust period, the assets will revert back to you. This type of trust is considered a revocable trust, a financial planning tool instead of an estate planning tool, as are many other types of trusts. The transfer of property or assets to the trust can result in gift taxes if the value exceeds approximately $45,000, the present value of $10,000 (the annual gift tax exclusion) in a 10-year-and-1-day arrangement. If income is required to be distributed currently by the trust, the annual gift tax exclusion may be available. The Clifford Trust is a good strategy if you do not want to part permanently with the assets or property.

Outright gifts of property or assets to children or others in lower marginal tax brackets is discussed perhaps more than it is actually implemented. A married taxpayer, with his or her spouse's consent, can give up to $20,000 per donee, per year. Over several years, the potential amount can be quite substantial. The largest stumbling block in such a gifting program is the reluctance to place substantial assets fully within the control of minor children. You can make gifts to a trust, which can in turn manage the assets, but the gift will not qualify for the annual exclusion because the enjoyment of the assets is postponed. However, if the donee is a minor, it is possible to make a gift, directly or to a trust, which qualifies for the annual exclusion.

Tax Planning Through Investments

The most obvious method of tax planning, as discussed at the beginning of this article, is investing in tax shelters. Such investments usually involve direct ownership participation in real estate, oil and gas, or equipment. Properly planned, evaluated, and implemented, tax shelters can be an excellent tax and financial planning vehicle. Improperly planned, evaluated, and implemented, tax shelters can be an expensive exercise in futility. Qualified, objective assistance is an absolute prerequisite. Real economic substance, not just perceived economic substance, must accompany the tax benefits.

Municipal (tax-free) bonds have been a well-utilized tax planning tool for many years. Tax-free bonds are actually a way to avoid producing more taxable interest earnings from investments. Although widely held, municipal bonds are not particularly well understood. Until recently, most individuals invested in whatever bond had a good yield and decent rating. However, with the travails of the Washington Public Power Supply System and others, successfully investing in tax-free bonds requires a good deal of financial acumen and savvy.

Tax-managed funds are gaining popularity as an appropriate tax-planning tool. Because of the structure of these funds, the income (dividends) is not passed through to the investor, but rather added to the value of the shares. Therefore, instead of receiving fully taxable dividend income (with no control over when it is distributed), you receive capital gain income when the shares are sold. Most of these funds hold utility stocks in their portfolio because of the yield and safety combination.

Utility stocks with a return of capital feature can also be an attractive tax and financial planning tool. Return of capital dividends arise when the utility has no accumulated retained earnings (for tax purposes) and did not earn the dividend paid that year. The dividend paid as a return of capital is not taxable (or, more accurately, is deducted from the total dividends received), and the cost basis of the stock is reduced by the return of capital portion.

The strategies discussed here represent only a small percentage of the numerous methods available to individuals and businesses to reduce their tax burdens. Planning, however, is the focal point.□

Continued from p. 32

"Profitable business no longer can afford to view employee training as a luxury. Rather, they must consider it an investment in the future of the organization."

• *Equipment Vendors*

The amount of training support provided by vendors is directly related to the amount of money spent for equipment. The smaller the system, the less support available. Most computer vendors are moving away from face-to-face training toward self-instruction manuals and software that you use at your own pace at your work site. The problem with this is that it usually addresses only the basics, and students get little feedback. If training beyond the essentials is required, it may be available, but usually only outside of South Carolina and at a high price.

• *Universities*

Universities offer a variety of IT training for the business community. For example, The University of South Carolina offers technical and office automation instruction through various continuing education programs, through the Computer Services Division, and through the College of Applied Professional Sciences. Management training can be obtained from the Daniel Management Center and the Institute of Information Management, Technology and Policy of the College of Business Administration.

• *Technical Colleges*

Technical and office automation courses are offered through the state's technical education system. At Midlands TEC in Columbia, technical courses are available through the continuing education program.

For "hands-on" training with equipment, Midlands TEC has established a technology laboratory called the Advanced Office Occupations Center. Training is provided for the Wang OIS 115; the IBM Displaywriter; the Lanier EZ-1; and the DECmate 1.

• *Private Consultants*

Private consulting firms can be engaged to provide IT training for your organization. Southern Trainers Corporation and the Computer Institute, for example, are two Columbia firms specializing in data processing and management training.

• *Audio/Visual Training*

Contracts can be obtained for interactive instructional systems such as DELTAK and Advanced Systems Incorporated (ASI) to rent audio/visual courses each month. The majority of the courses are technical in nature, with "concepts" courses offered for the various technologies. The tapes can be used on an individual or small group basis.

• *Computer-Based Training*

Many computer companies are developing interactive instrucitonal IT training programs that are taught by the computer. Examples of such systems include Control Data's PLATO System, IBM's Interactive Instructional Authoring (IIA) System, and the recently announced DEC IVIS Sustem. These programs allow courses to be taken on an individual basis and are usually designed for the student to read instructional text on a terminal screen, then key responses to any inquiries made by the computer.

In Conclusion, a Word of Advice

First, assess thoroughly your company's IT training needs, determining who needs to be trained and in what areas. Then, if you choose not to develop an internal program, proceed cautiously with the selection of an outside mechanism for training. Consider training to be a product, i.e., shop around for the best available to meet your needs. The same training can be obtained from several sources, but at varying prices. Investigate a training source extensively, searching for the best quality for the money. □

FOOTNOTES

[1]Thomas M. Reilly, "The Extended Classroom," *Datamation* (April 1983): 199-200.

[2]David Pomerantz and Terry Considine Williams, "Small Business & OA: The Romance of the Eighties," *Today's Office* (July 1982): 30-36.

[3]*Desktop Computing* (July 1983): 16.

[4]International Data Corporation, "Information Systems for Tomorrow's Office," *Fortune* (October 18, 1982): 18.

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A New Economic Strategy:

THE NATION

Robert Friedman

We live in an economy forced to change. In particular, four great transformations are reshaping the economic present and future.

First is the shift from an insulated national economy to an interdependent global economy where both imports and exports count for large and significant portions of our Gross National Product, and international comparative advantage cannot be ignored. Second is the shift from an industrial economy to an information economy — loosely defined as the processing of all kinds of information. It includes data processing, communications, and research activities. In 1965, 65 percent of the work force was employed in manufacturing; today, that figure is 17 percent. Just 19 years ago, 22 percent of the work force was engaged in information processing. Today, more than half the work force is.

Third, there have been, and continue to be, basic changes in resource economics. Once cheap and abundant resources — such as petroleum and water — are becoming expensive and scarce. Fourth, there are basic demographic changes, most notably the aging of the population and the rapid entry into the labor force (and virtually all other institutions) of women. Each of these transformations in and of itself would have a dramatic impact on the economy; the consonance of the four is causing change at an unprecedented rate.

In such an economic context, what we need is not just economic *recovery*, but economic *discovery*. Innovation, particularly in the form of entrepreneurship — the formation of a new business — assumes particular importance. Young, small entities find it much easier to change and to adapt to new conditions than do older, larger institutions. Perhaps the most telling index of the rising importance of new young businesses is the dramatic increase in the annual rate of business formations — from 90,000 a year in 1950 to 250,000 a year in 1970 to nearly 600,000 in 1982. But there are other, and much more significant, measures of the importance of new businesses. Recent studies indicate that more than half of the new jobs produced in the last decade were created in businesses less than four years old. The smallest manufacturing firms (those with under $5 million in sales or assets) are outperforming all other size businesses in terms of return on investment.

Indeed, the best index of an economy's health may be its ability to adapt effectively to change and its capacity to shape new products and ideas. Thomas Peters and Robert Waterman, Jr., Consultants for McKenzie & Company, have found that large corporations that have performed "excellently" on a consistent basis in terms of sales, growth, and profits are characterized by "a continuing ability to change" by fostering internal entrepreneurship and by investing constantly in their work force. Albert Shapero defines a developed economy as one characterized by resilience, creativity, initiative taking, and diversity.

This sort of economy is not limited to wealthy areas. Entrepreneurship offers substantial potential rewards for poorer communities and states and for groups outside the economic mainstream as well. International data, in fact, suggest that entrepreneurial activity may be even more prevalent among the poor communities than the wealthy ones.

Enterprise development is not without its downside, of course. As is frequently noted, many small and young businesses close, and the quality of jobs created often is quite poor. Each year, 1 percent of United States businesses fail (with a loss to creditors), and, although our statistics on closure rates are quite dated, the rate may be as high as 30 to 50 percent within five years.

But these business closures are not total losses. For the time they exist, they employ, produce, and serve. Our most recent data from the Brookings Institution, moreover, indicates that a person who gets a job in a large business (with more than 500 employees) is more likely to lose that

Continued on p. 4

Robert Friedman is Founder and President of the Corporation for Enterprise Development, a Washington-based, nonprofit institution that assists public and private policy makers in designing and implementing effective enterprise development strategies. He received his J.D. from Yale Law School and his A.B. from Harvard.

In this special section on economic development, five authors discuss one approach for dealing with the changing economic times. Entrepreneurship is needed, they say, but let's not abandon our industrial base either.

THE STATE

Richard B. Robinson, Jr.

What is the situation in the Palmetto State, where 95 percent of all businesses are "small businesses"? South Carolina is a state *dependent* on smaller, entrepreneurial firms. Between 1977 and 1980, small South Carolina firms, i.e., those with fewer than 250 employees generated 84,468 new jobs. Larger firms of 250 or more employees generated 44,447 new jobs. These numbers suggest that entrepreneurial activity is both traditionally and recently a *major* source of new employment and economic growth in South Carolina. Indeed, smaller firms appear responsible for virtually two out of every three new jobs in this state between 1977 and 1980.

Barriers to Development

How favorable, then, are conditions here for encouraging entrepreneurial activity? "Luke cold," at best. There are several major barriers.

A fundamental barrier to entrepreneurial development in South Carolina is access to risk (venture) capital. (See accompanying chart for regional patterns of venture capital investment for the United States in 1981.) In 1981, as in 1980, South Carolina had virtually no recorded venture capital activity.* A recent issue of *INC.* magazine cited a shortage of capital resources as one of the major reasons this state ranked *last* in the nation for its small business development climate. South Carolina had the lowest figure nationally for business lending as a percentage of bank assets (43.1 percent versus a national median of 51.6 percent). Furthermore, South Carolina banks' commercial and industrial loans per capita totaled $388, compared to the national median of $1,078. Financial support, first in the form of seed money to prove an idea, and second in the form of working capital/inventory loans to facilitate growth, are key ingredients in the first two stages of entrepreneurial development — start-up and early growth.

Significant managerial and technical barriers that inhibit the payoff phase of entrepreneurial development are another source of weakness in South Carolina. Entrepreneurial growth, the stage where a business idea has proven marketable and the employment-generating capacity is strongly emerging, is a time when managerial issues and expertise become critical to continued success. These issues may include a lack of skilled talent in marketing or operational areas of the growing firms. It may be an inability or uncertainty about adding additional management overhead, or a need for expertise to identify and exploit new markets or determine the best way to bring new equity into the firm. Policy makers in South Carolina, both in the public *and* private sector, must ask themselves if substantial efforts are being made to overcome these managerial barriers.

Importance of State Environment

The *INC.* analysis also considered programmatic support and the *overall* state environment when considering small firms' needs. Again, the 50th place ranking for South Carolina suggests more can be done here. For example, resources expended at the state level for economic development should focus on assisting South Carolina entrepreneurs to attract outside plants to locate in this state. Further, opportunities to obtain both monetary and programmatic resources from outside South Carolina also should be pursued vigorously.

Obvious barriers to South Carolina's long-term entrepreneurial development need continual reexamination in changing times. Tax policies, governmental regulation, and multilevel overlap, for example, need constant review. Is South Carolina adequately developing the entrepreneurs on whom our future depends? Are those entrepreneurs developing fundamental skills necessary for competitive success in a shrinking, worldwide marketplace? Is the critical role of the entrepreneur to South Carolina's economic future being explained,

Continued on p. 4

Richard B. Robinson, Jr. is Assistant Professor of Management in the College of Business Administration at The University of South Carolina. He was winner of the 1983 Venture Capital Award of the National Association of Small Business Investment Companies and the 1980 Heizer Award for Outstanding Dissertation Research Related to New Enterprise Development, given by the Heizer Capital Corporation and the Academy of Management.

*A 1982 report by the U.S. General Accounting Office shows that companies financed by venture capital have made disproportionately large contributions to the nation's productivity and economic well-being.

The NATION (continued from p. 2)

job than a person who is employed by a small business.

Barriers Facing Entrepreneurs

Substantial barriers do face the entrepreneur. These barriers include lack of access to the capital markets, biased tax policies, lack of employment and training programs, and too few development finance institutions. There is good theoretical and empirical evidence that although capital markets work quite efficiently for larger and older businesses, they are not providing adequate levels of seed money equity and long-term debt to smaller and newer businesses. If these barriers can be breached with appropriate legislation and public policy, entrepreneurs can create hundreds of thousands of new jobs nationwide.

By expanding the rate of new business formations, we can expand the productive capacity of the nation appropriate to a new age, and include in that increased prosperity those persons long denied access to the economic mainstream. Indeed, two states — Massachusetts and New York — which enacted such comprehensive "entrepreneurial" policies, have come from underperforming the national economy five years ago to outperforming it today. Other states — including South Carolina — are beginning to implement similar policies since, in times of such basic change, the risk of not doing anything exceeds that of trying something new. □

The STATE (continued from p. 3)

indeed encouraged, by our educational process, or is it being left to chance? Are skills associated with the information age a common part of the training of tomorrow's work force? These governmental and educational issues ultimately present fundamental barriers to, or unique opportunities for, the entrepreneurial development of South Carolina's economic future.

Efforts to overcome those barriers are beginning to take shape in South Carolina. The South Carolina Economic Development Authority, a step in reducing financing barriers in certain target counties, was approved by the General Assembly last summer. Lt. Governor Michael R. Daniel has initiated a series of meetings of a task force of state business and governmental leaders to address systematically key barriers to entrepreneurship in South Carolina. Control Data's Business and Technology Center in Charleston (see article on p. 5, this issue) is a good beginning. The Small Business Development Center program is now operating throughout South Carolina with a three-year track record of successfully assisting smaller businesses with fundamental managerial assistance needs. And, the South Carolina State Development Board is expanding its emphasis to attract and assist small business — an area the board has not stressed in the past. □

CHART. Venture Capital Investments by States, 1981

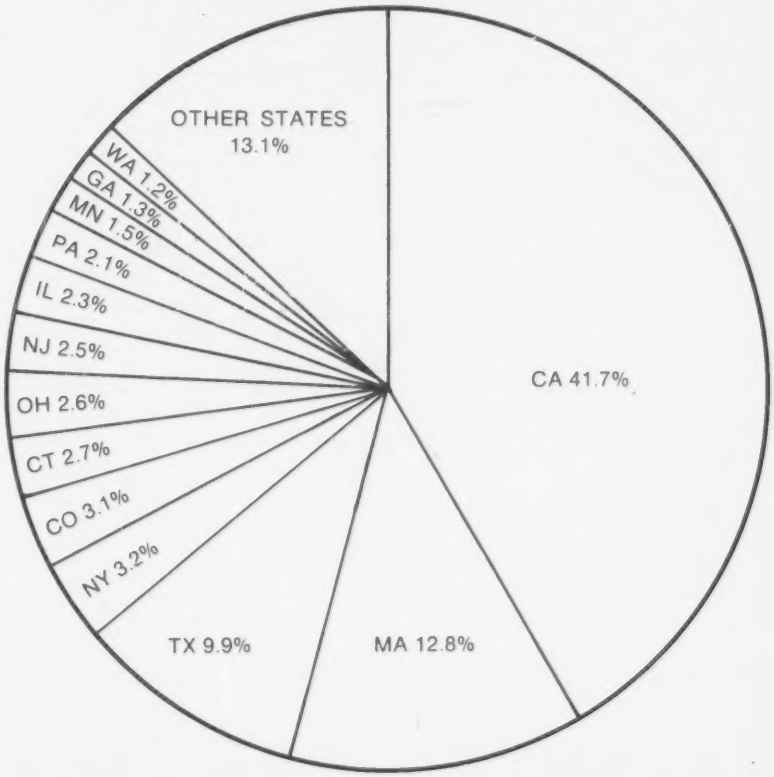

CHART. Venture Capital Investments by States, 1981

Other States: 1.1% — LA, NH, OR, TN; 1.0% — MI; 0.9% — MD, VA; 0.8% — FL; 0.7% — AZ; 0.6% — OK, UT, WV; 0.4% — KY; 0.2% — AL, NC, RI; 0.1% — IN, KS, MS, MO, MT, NV, VT, WI; less than 0.1% — DC, HI, IA, NM, SD, WY; no recorded investments — AK, AR, DE, ID, ME, NE, ND, SC.

Source: U.S. Small Business Administration Office of Advocacy, RS-23, August 1983.

Note: Detail may not add to total due to rounding.

A Small Business Ally

Small businesses often can't afford such critical services as word processing, inventory control operations, and photocopying. But in Charleston and 11 other American cities, thanks to an innovative program begun by Control Data Corporation, they can.

Michael R. Daniel

If you're a small businessman or woman just starting up your own company, you're probably overwhelmed by mounting costs for such things as personnel, inventory control, and word processing and photocopying services. If you happen to live in Charleston, South Carolina, however, you can open up shop at Control Data Corporation's Business and Technology Center (BTC) and share those expenses.

Located in a 250,000 square-foot former cotton mill on the city's east side, the center houses more than 100 new small businesses. Since it opened in early 1983 as a joint project of Control Data, a Minneapolis-based computer manufacturer and small business services company, and the city of Charleston, it has created more than 350 new jobs. It also has reversed the failure rate of its small businesses from a national average of 84 percent to less than 15 percent.

Alternative Plan

One of 12 small business "incubator" facilities operated by Control Data in the United States, the Charleston BTC offers an alternative plan for the services small businesses can't afford. According to Roy Smith, Manager, those services fall into two categories: a central receptionist and shared word processing, photocopying, maintenance, shipping and receiving, and security; and low-cost marketing, accounting, product design, and inventory control operations. In addition, the activities, tenants, and management of the BTC become a support network uncommon in a traditional office setting, and afford a professional environment that enhances the credibility of the new business in the community.

Control Data's Chairman and Chief Executive Officer William Norris conceived the idea of business and technology centers in the late 1970's. "He felt we weren't paying enough attention in this country to small businesses," Smith said. "They're the real job creators."

Strong Role of Small Businesses

There is mounting evidence indeed that small business plays a much stronger role in our economy than was previously understood. In the period 1977-'80, South Carolina firms with fewer than 250 employees created 84,468 jobs versus 44,447 created by larger businesses. The largest component of these small business jobs was in firms employing fewer than 20 people, but not including the self-employed.

Michael R. Daniel is Lieutenant Governor of South Carolina.

At Charleston's BTC, the only such center in the Southeast, the small businesses include a 20-person company that makes hand-smocked girls' dresses, a two-person kite manufacturer, and a father-and-son firm that manufactures motion device technology. Each small business contributes a monthly rental fee that is below market rates, and pays for services as needed. Between seven and 10 new businesses are moving into the Charleston BTC each month.

Control Data hasn't begun turning a profit from its nearly $6 million investment in Charleston yet (a Federal UDAG loan also accounted for $300,000), but it expects to in the near future, said Smith. It's been so successful, in fact, that Control Data is looking into expanding its small business incubator program to four or five other South Carolina cities.

Increased Productivity

The Charleston experiment has shown that, in addition to improving job opportunities, small businesses and entrepreneurs also can increase productivity in South Carolina. They are the innovators who provide more choices of products and services because they are the ones who produce breakthrough innovations. They introduce new products and services within shorter development times and create new markets and jobs more rapidly than established firms.

For these reasons, I believe South Carolina should enlarge its economic development strategy and devote more of its resources to creating a vastly improved climate for entrepreneurship and small business formations. Control Data's approach is an exciting, timely, and common sense method of promoting business growth, and, most importantly, of helping South Carolinians gain faster and surer access to the mainstream of the economy.

It's an idea this state would do well to pursue. □

The Charleston center "has reversed the failure rate of its small businesses from a national average of 84 percent to less than 15 percent."

The Information Processing Industry: A Market Niche for South Carolina?

South Carolina never will attract the number of "high tech" industries that are locating in California, Massachusetts, and Texas. But the fast growing information processing industry still holds much potential for the state.

Sena Hoosenally Black

California's success in attracting well-paying "high tech" industries to its Silicon Valley area near San Francisco has inspired a raft of would-be imitators. Virtually every state's economic development board is competing to lure high technology industries to its area.

The reasons for the interest are obvious. According to a conference report by the Federal Reserve Bank of Atlanta, high technology firms in recent years have accounted for nine of the 10 most rapidly growing American industries. The Federal Reserve's account also showed that the labor productivity associated with these industries was estimated to be six times as great as that of the average American industry; 1970-'80 price increases in this sector were only a third as high as the nation's rate of inflation; and, since 1975, high technology firms have produced a balance of trade *surplus* of $128 billion, while the nation as a whole has produced a *deficit* of $148 billion.

Despite these attractive characteristics, however, "high tech" industries are not — and never will be — distributed evenly across the United States. An empirical study of location patterns done by the Institute of Urban and Regional Development of the University of California, Berkeley, concluded that high technology industries will continue to be concentrated only in California, Massachusetts, Texas, and the Midwest, and along parts of the East Coast. Why? Because high technology grouping is related to the following three sets of factors:

- historic links between the newer technologies (such as robotics) and the more mature microelectronics and aerospace industries;
- the availability of pools of highly skilled professionals and technical workers generally associated with the presence of superior universities; and
- access to cultural and recreational amenities that enhance the quality of life.

If any member of this trio of factors is missing, extensive "high tech" grouping will not take place.

Since South Carolina does not have all three of these characteristics, should it abandon the pursuit of emerging industries in general and "high tech" industries in particular? The answer is "No!" South Carolina will never be another Silicon Valley, but we need not write off this emerging industry altogether. The information processing industry, for example, is a promising one if the most favorable market niches are found and exploited and not accepted or rejected wholesale. To understand the options available, however, two important assumptions are critical. One concerns the nature of the underlying problems confronting the state's economy. The other relates to the state's broad strategy for solving its problems.

While some of South Carolina's unemployment is indeed recession related and will improve (as it has already begun to do) with economic recovery, the underlying causes of unemployment are structural. Employment in the textile industry will never again reach its once high levels, particularly in view of the fact that this industry is highly vulnerable to international competition.

For the South as a whole, the Southern Growth Policies Board also supports the need for a structural transformation of the economy, though its central conclusion is optimistic. A recent report argued

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"South Carolina will never be another Silicon Valley, but we need not write off this emerging industry altogether."

that "emerging structural changes in the competition of Southern manufacturing should provide even greater opportunities to diversify the region's economy, raise personal and per capita incomes, and provide the new jobs necessary to employ an ever expanding labor force."

The Core Solution

South Carolina's economy more closely resembles that of a Frostbelt state than a Sunbelt state, for two reasons: (1) it has a heavier concentration (greater than the national average) of manufacturing industries combined with a smaller proportion (less than the national average) of service industries, and (2) a single industry — textiles — dominates the manufacturing sector. Given this situation, diversification must be a key component of any economic development strategy.

A diversification strategy implies, first of all, that the state's manufacturing base not be dominated by a single industry group. It should include many manufacturing industries, such as chemicals, primary metals, fabricated metals, and electrical and electronic equipment and machinery.

More fundamentally, however, a strategy of industrial diversification must address basic changes in the economy, particularly those represented by the emergence of a white-collar society and the rapid pace of technological innovations. This "dual track" strategy argues essentially that the state must pursue two parallel (not sequential) paths, one preserving and promoting the state's base in traditional industries and another planning for the future in emerging industries, particularly those comprising the information economy.

Should, or can, South Carolina become a "high tech" state? What does "high tech" mean? To clarify the meaning of "high tech" and lay the foundations for constructive policy making, we must analyze three fashionable "buzz words" of economic development.

The most popular buzz word is "high tech." So dramatic has been the growth and productivity of this industrial sector (a growth rate twice the national average) that the term "high tech" has become synonymous with economic growth.

But what exactly are "high tech" industries? They can be measured or described in three ways: by the technical sophistication of the product, the level of research and development funding as a percentage of total industry sales, and the proportion of highly technical staff employed within the industry. All these descriptions emphasize manufacturing industries and not services (with the possible exception of some computer services). In particular, service industries associated with the wholesale and retail distribution of technological products are not included.

With the penetration of integrated circuits into a number of other industry sectors, such as aerospace, health care, energy research, factory automation, and office and home communications, the scope of "emerging industries," a second buzz word, has expanded tremendously. This term incorporates a number of dimensions: high growth (as measured by expanding markets and growing employment opportunities), a wide range of industry sectors, and the inclusion of service as well as manufacturing companies.

The third major buzz word is "information economy." There are two primary ways this term is used: as an economy defined in terms of information-related occupations in the labor force, and as an industry sector based on the office technologies of computer and communications processing. The first is primarily an occupational classification; the second, an industrial classification. Defined in terms of the "information processing industry," this sector is limited to the information or office technologies, and does not include technologies generally associated with defense or medical industries. However, both the goods and services components of the information processing industry are included in the definition used here.

Figure 1 depicts the relationship between these terms in simplified graphics. As the most encompassing of the three terms, "emerging industries" captures a variety of industry sectors with expanding markets and employment opportunities in goods and services. The "information economy" or information processing industry constitutes one of many emerging industries. Finally, as the graph illustrates, "high tech" industries represent the manufacturing core — the tip of an iceberg — of emerging industries.

Key Trends

Before an economic development strategy for the information economy can be formulated, the landscape of that emerging industry must be understood. The "information economy" (illustrated in Figure 2) is not a homogeneous group of uniform prod-

ucts or growth trends. Rather, it is a highly diverse and complex industry composed of manufacturing and service firms for a variety of computer, communications, and information/knowledge products.

Dominating this marketplace are five trends. First, growth rates for the majority of sectors are impressive by any measure. Second, the opportunities throughout are greatest among businesses associated with smaller computers, particularly in the desktop and personal computer markets. Third, future growth will be most dramatic in the service area. Fourth, because of complexity and competition, there is a clear need for market specialization. And, finally, because this overall industry is populated extensively by small and medium-sized independent companies, prospects for entrepreneurial opportunities are very good.

There are many possibilities for South Carolina in the information economy, but they need to be selected carefully and purposely to achieve precise economic development goals.

Opportunities exist in the emerging information processing industry for achieving two goals of economic development: increasing the state's taxable base, and increasing its employment level. Specifically, one economic development approach — identifying entrepreneurial opportunities — is particularly compelling for three major reasons: (1) the information processing industry offers optimistic prospects for start-up businesses; (2) South Carolina consists primarily of small businesses; and (3) the possibility of creating jobs as well as some measure of wealth through the successes of small businesses is well recognized.

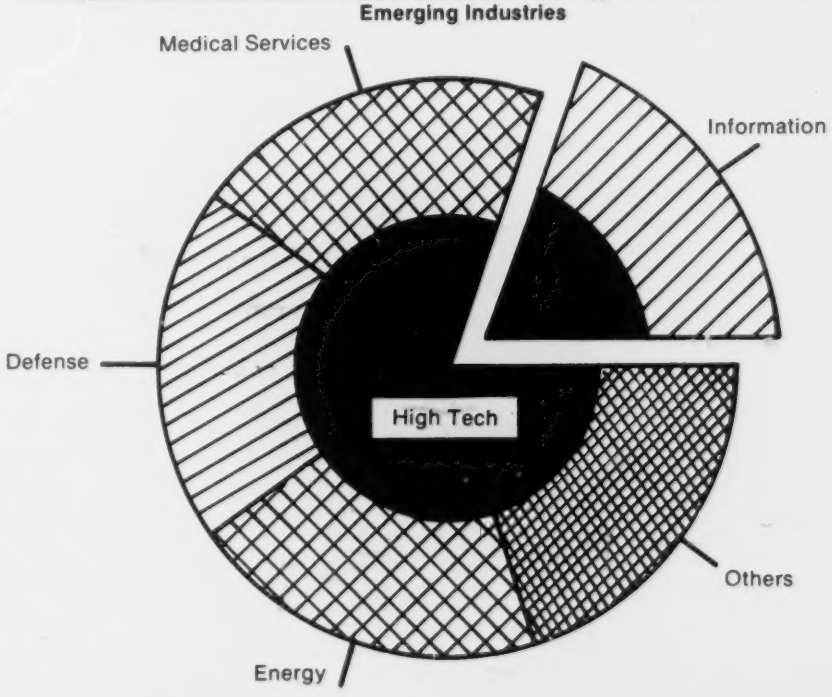
By utilizing two selection criteria (markets with high anticipated growth rates and scope for independent entrants) and focusing on three dominant trends in the information processing industry (services, microcomputers, and market specialization), we can identify four specific opportunity areas for economic development in South Carolina, i.e., computer services, the information/knowledge industry, communications services, and the manufacture of computer peripherals.

Computer Services

In this industry, four sectors — computer processing services, turnkey/integrated systems services, software products, and professional services — offer good prospects for entrepreneurial development. The estimated annual growth rates of these industry sectors are high, particularly for software products (30 to 42 percent) and turnkey or integrated systems services (32 percent). Moreover, successful experiences by small firms in this industry are evident.

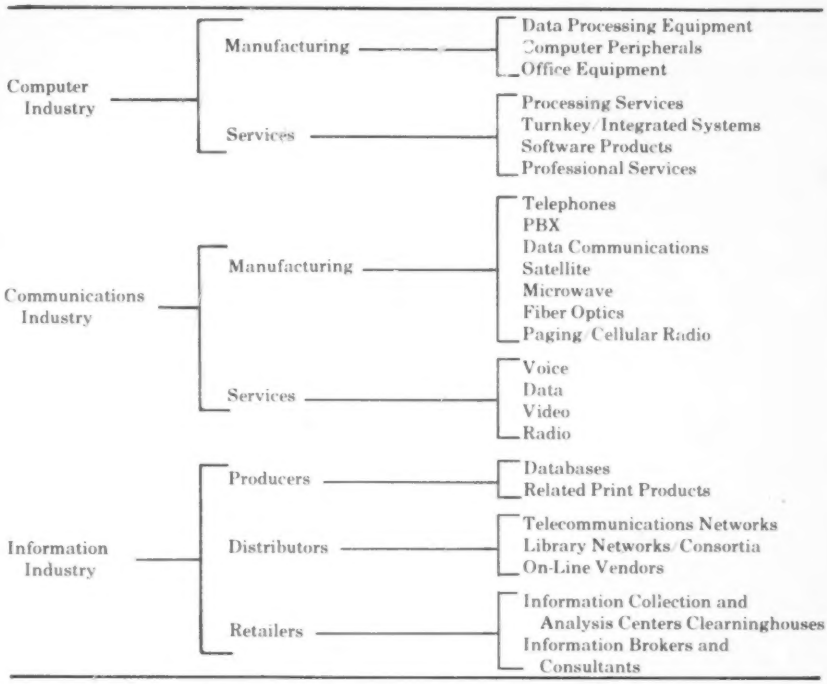
If this sector were to be analyzed within the context of the South Carolina marketplace, it is likely that in three of the four sectors (computer processing, turnkey/integrated services, and professional services) growth rates would be higher than the national average. Computer processing and office automation are just begin-

FIGURE 1. Opportunity Targets for Economic Development



ning to take off in South Carolina. During the early years of computer use, the services that grow the fastest are those that perform the required processing for a fee and those that provide the customer with a complete line of services. Consequently, the potential for service bureaus (computer processing services) is probably higher in South Carolina than would be suggested by the national average of 17 to 20 percent. Moreover, turnkey firms that assemble, market, install, and support computer firms for customers will also be in great demand in the near future. Considering that the majority of businesses in the state are small businesses with little or no in-house expertise in such a confusing and dynamic marketplace, the potential growth rates and entrepreneurial opportunities in this particular industry are immense.

FIGURE 2. An Overview of the Information Economy



Information/Knowledge

Compared to the computer service industry, the information/knowledge industry is relatively young and ill-defined. The absence of dependable statistical information such as estimated growth patterns and market revenues indicates that this is truly an emerging industry. By the same token, it offers added potential for new entrants to develop innovative products and services. Although the machine-readable database industry (companies that develop and sell information electronically) is a high-growth area dominated by major companies or their subsidiaries, significant potential remains for developing more specialized databases for particular business needs. For example, databases targeted for microcomputer users of well-defined business information services and databases tailored for targeted regions (South Carolina or the Southeastern region) should offer excellent prospects for new companies and additional jobs.

Extensive opportunities also exist for distributors of information products. Within the framework of telecommunications network services, the prospects are greatest for companies providing a communications network that links particular sets of users and is designed for specific local business needs. Another growth area is one that offers on-line searching services (which allows customers with a home or business computer to access electronic libraries for a fee) to a variety of business and economic databases. In general, the opportunities are greatest for those enterprises offering a variety of services, ranging from access to raw data to customized analysis, and targeting these services to particular business needs such as economic, medical, or legal research.

Finally, the retail end of the market, especially consulting services for information technology and management, remains a growth industry. This industry gets its impetus from the relative newness and considerable complexity of information technologies and the increasing and inevitable penetration of these technologies into the workplace. Consequently, potential markets for information brokers and consultants will expand, offering increased possibilities for established companies as well as for new entrants.

Communications Services

Unlike computer services, communications services are highly complex and fragmented. Principally as the result of the recent deregulation of the telecommunications industry, opportunities in particular market niches now exist for new entrants. In the telephone industry, for example, there are opportunities for companies that specialize in supplying equipment to individual customers and local operating companies. These are the retail and maintenance support services associated with the growth of an "interconnect" industry. The prospects for distributorships are especially good for terminal telephone equipment and for Private Branch Exchange (PBX) systems, both analog and digital.

The retail, maintenance, and installation service industry also is a good prospect for the data communications area. In the future, we will see the increased use of modems and multiplexors (devices to enable digital signals to travel over telephone wires, and to maximize the efficiency of the process by increasing terminal access), as well as "local area networks" for interoffice communications. Since data communications are expected to grow three times faster than voice communications, the potential for such a retail and maintenance support service industry is excellent.

A third major area for entrepreneurial development is a future growth industry built on paging and cellular radio. Although business uses of cellular radio are still in the infancy stage, paging is a viable, ongoing business. With the introduction of the pocket beeper in the late 1960's, the mobile communications market expanded quickly. Most recently, with the advent of technologically advanced paging products and the availability of new frequencies, the providers of mobile communications services have consolidated, but opportunities for enhanced services have expanded at the same time. Currently, there are about 750 companies in this particular industry. They vary in size from large corporations to small rural radio repair shops. With a long-term projected growth of 25-30 percent in the paging market alone, good opportunities exist for retail distributors of mobile sets (including installation and maintenance services) in this industry.

Computer Peripherals

Probably the best prospect for new manufacturing business development is the computer peripherals industry. This highly complex and fragmented area has the potential for success because it can specialize in the manufacture of small, particular components for a national and international marketplace. Because of expanding growth markets and manifold possibilities for technological innovation, there is considerable room for entrepreneurs in this sector. Growth rates are particularly dramatic in three current markets: the production of magnetic tapes and floppy discs, the manufacture of printers for microcomputers, and the production of graphical display terminals. This industry is highly innovative and offers excellent prospects for entrepreneurs with new product ideas.

Looking to the Future

It's clear that various emerging industries in general and the information processing industry in particular have a future in South Carolina. Opportunities within specific sectors of the information economy can be tailored to the particular needs of this state and pursued successfully in an economic development strategy based on entrepreneurial encouragement. Such a strategy will not only enhance the state's wealth, but also meet another major goal of economic development: increased employment. □

Using the Industrial Base Already Here

South Carolina's important industrial base cannot be abandoned. It does, however, need to be polished and utilized creatively. Here are some suggestions for doing just that.

Robert A. Whitehorne

The transformation of South Carolina and the nation from a manufacturing economy to a service and information processing economy does not mean this state should abandon its existing industrial base. This base provides essential taxes to the state, and, through payrolls and supplier purchases, also undergirds more than 30 percent of the state's Gross National Product. For these reasons, the existing industrial base cannot be discarded.

But mainstay industries, such as textiles, are closing older, less efficient plants, and not enough large industrial plants are taking their place. How can the state of South Carolina capitalize on the industrial base already here? Here are some suggestions.

Targeting

The essential "building blocks" of the state's and the area's economies are in place. But the details are scattered among many agencies, both state and federal, and among employers, trade associations, and economic development groups. If this data base were compiled, and then integrated with census data, employment data, and tax receipts, it could be used to develop a model of our current industrial base.

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This model could be combined with our knowledge of current trends in consumer behavior, life styles, technological innovations, export-import considerations, purchasing power, and pricing trends to help us target potential products and industries. When we "target," or focus in on, an industry or product that will survive and be needed in the future, we can apply our resources to the areas that hold the greatest potential and impact.

The process of targeting will give the state time to help current industry survive, prepare for orderly change, train and retrain employees, and introduce new technology and new products. At the same time, other groups can solicit new investments for South Carolina in growing areas where the labor force and technical training facilities can be tapped in a way that is competitive with our neighboring states.

Studies indicate that South Carolina should select and "sell" industries that don't require large infrastructure investments like water, sewer, and transportation; but do require investments in educational facilities, parks, recreation, and housing. Accordingly, regional data processing centers, software development, and mail order marketing firms are among the types of industries that should be sought.

Capability Marketing

"Capability marketing," a combination of industrial marketing and microeconomic analysis of all relevant factors in a local community, is one form of targeting the South Carolina State Development Board is currently using in the town of Denmark.

Last year, the Sunbeam Appliance Company, owned by Allegheny International Corp., announced it was shutting down its assembly plant in Denmark because of corporate asset redeployment. Nearly 300 employees would lose their jobs. Aware that (1) the plant was in good condition, (2) more land was available if needed, (3) the workers were trained, (4) financial records were available, (5) management was in place, and (6) the community was supportive, the "Quick Response Team" of the Governor's Office went into action. This group began investigating industry trends for products that require the types of skills available at Sunbeam. It came up with three possibilities: light manufacturing assembly, injection molding, and electrical small equipment manufacturing.

Then, the team approached three out-of-state companies about moving into the Sunbeam plant — companies with good products and a track record of responding to worthwhile business economic approaches. No final decisions have been made, but the State Development Board hopes this system will work.

Capability Creation

Another type of targeting might be called "capability creation." This approach could be useful in a town like Great Falls, a small community upstate that used to have three textile

"The process of targeting will give the state time to help current industry survive, prepare for orderly change, train and retrain employees, and introduce new technology and new products."

mills owned and operated by J.P. Stevens & Co., Inc. In 1982, the New York-based firm closed the two older plants, citing aging facilities and equipment and a changing market for its products.

The laid off employees are not candidates for long-range commuting, since their skills are limited. So why not create a capability? In cooperation with the local employment security office and state technical college and a university testing service, the unemployed could participate in a massive testing and evaluation program to record learned skills and measure the potential for new ones.

The next step would be to select an industry that is growing and could use the worker's skills effectively. (A firm that makes "high end" men's and women's clothing is an obvious possibility.) The state then could invest in a demonstration project that would show prospects how the plant and workers could be used to manufacture their particular products. Such a demonstration project, supported by a combination of industry, state, and local leaders, would have a good chance of succeeding.

While such a program entails risk and some expense, the risks and costs of extended unemployment are greater. This approach might be especially useful in small communities where the prospects of attracting a major manufacturer are remote.

"Value Added" Approaches

Yet another type of targeting is a "value added" approach, where raw materials, farm and marine products, and similar items are processed and packaged, thereby adding more value to the item. In South Carolina, peaches, apples, shrimp, soybean oil and its byproducts, and vegetables offer great potential for the value added approach. Currently, most of these products are shipped raw to other states. Recent developments in food packaging and processing have induced Kroger to open a food processing plant in Elgin, S.C. The Stouffer corporation likewise has opened a plant in Gaffney, S.C. But more are needed.

Creative Uses

Finally, we must come up with more creative uses for the nearly 300 vacant facilities that are now part of South Carolina's inventory of commercial buildings. Some are old and crumbling; but others are well built and located in areas where public and private facilities are needed. A study should be done to consider converting (either with public or private monies) these resources. They could be used as schools, hospitals, retirement apartments, prisons, community adult training centers, libraries, or new enterprise development centers, such as the one recently opened in Charleston by Control Data Corporation in an abandoned cotton mill. (See story on p. 5, this issue.) In some cases, zoning changes will be required; in others, some form of creative financing, tax abatement, or state subsidy.

In each case, an examination of the alternative cost of doing nothing must be made.

How to Succeed

In order for these approaches to succeed, we must create an environment where the past cannot prevent the future from happening. All state agencies and political subdivisions must agree on a new spirit of concern and unlimited cooperation. Interagency cooperation, from data sharing to prospect coordination to staff interchange, must become commonplace. On-site reporting must be fed into the economic model, where it can be seen and used by all. Pride of authorship must be supplanted by prospect of success on the bottom line. Some examples of this are already in place, such as the establishment of a trade office in Tokyo, under the joint sponsorship of the State Development Board and the State Ports Authority.

In some cases, new legislation may be needed to redefine charters and to set priorities for agencies. But good news travels fast. Credible success stories get aired, plant visits show results, coordinated selling efforts pay off. The upshot is that South Carolina has the potential of emerging as a stronger economic entity. □

Talking With the Press

You're a business executive, and you're much too busy to bother talking with the media, right? Wrong. Here are some reasons why you should.

J. Marshall Doswell, Jr.

You're in business. You have things on your mind. Things such as customer service, productivity, capital investment, inventories, interest rates, order backlogs, competition, government regulation, rising costs, and the profit squeeze. You have enough problems. Why should you add one more by talking with the media?

Because — talking with the media offers you an opportunity to tell your story to a broad range of publics and to build understanding and support for your positions. Sure there are pitfalls. You can get into all kinds of trouble, especially if you don't know how to work with the media. But the opportunities far outweigh the risks, if you take the time to learn, and practice, a few simple rules.

Rules

1. *It's important at the outset to understand some of the problems involved in dealing with the media and the reasons for those problems.*

- *Many business people don't understand the role of the media.* Isadore Barmash, financial writer for *The New York Times*, once told a group of business people, "You expect us to be house organs for business; that isn't our function." Barmash was right. Many business people tend to expect the media to carry positive, upbeat stories about business successes and the good things business does. They tend to want stories when the timing is right for them and the subject matter is to their advantage. Some business people do not seem to understand that the role of the media is to tell the public what is happening, both good and bad. All business has a right to expect is fair treatment.
- *Too many business people don't understand how the media operate.* The media are, among other things, in the news business. They gather, process, and disseminate news. It is a highly competitive business, and news is the most perishable product in the marketplace. Time is a critical factor, for deadlines will not wait. News people working on a competitive, breaking story need answers quickly, and business people need to understand this and learn to deal with it.
- *Some business people don't know what "news" is.* They often turn aside inquiries on the grounds that the subject, in their opinion, is not news, or that the time is not right to discuss it. Life would be much easier for business people if *they* could decide what news is and when it should be published. That luxury, however, is not available to them. News is what news people say it is. They may make mistakes. Their judgment may be poor. Their timing may be terrible. But news people decide what news is and when it will be published. Business people need to understand this and be prepared to act accordingly.
- *A lot of business people don't know how to deal with the media.* Many business people are uncomfortable with the media. They are afraid they will say things they shouldn't say. They are afraid the reporter will get things wrong. They are afraid the reporter will seize on all the negative information available and publish an unfair, damaging story. They are convinced the reporter does not understand enough about their particular business to do a good reporting job. Because of these fears and a reluctance to talk, some business people are not cooperative. They say as little as possible, and don't take the trouble to explain carefully. They talk in vague generalities.

2. *Realize that news people have just as many problems and deficiencies as business people in the relationship between business and the media.*

- *The media do not feel that business news is important or interesting.* Relatively few newspapers or radio and television stations allot much space or time to business news. Often it is buried well back in the newspapers and occupies only a fraction of the space given to sports or family living. Most of the space assigned to business is devoted to stock exchange listings and tables giving data on mutual funds, bond markets, and commodity markets. Some daily papers actually save up business news and publish it only once a week. Many radio and television stations take a similar approach — but they would not dream of doing that with sports news!
- *Relatively few reporters or editors are trained to handle business news.* In South Carolina, there are no more than a half-dozen

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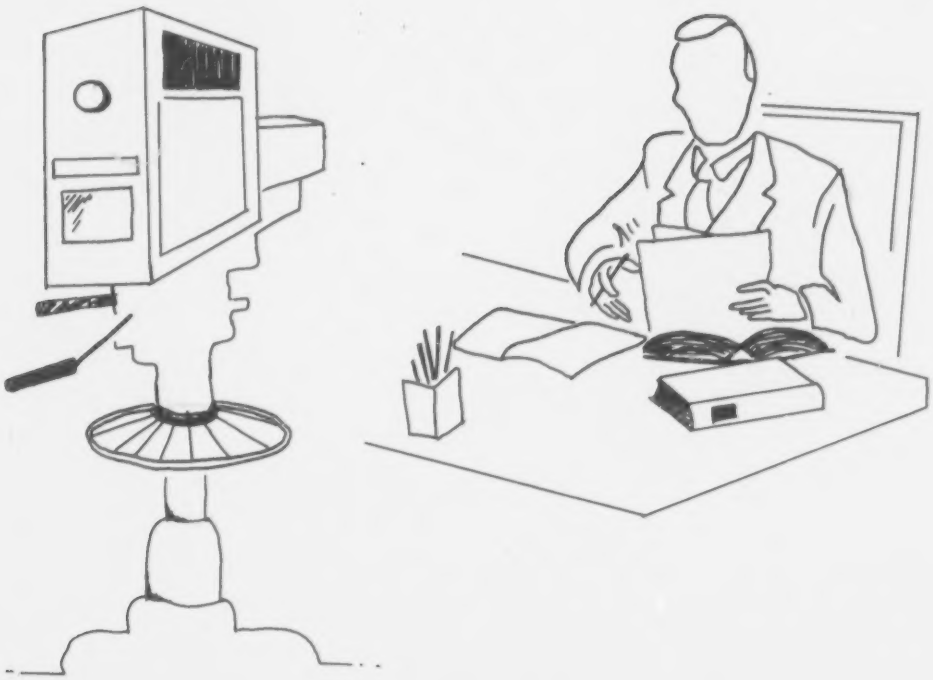

Robin Ridgell

full-time business reporters working for daily newspapers, but well over 50 sports reporters. Much business news is covered by general assignment reporters who have little or no background that equips them to handle business news with skill, understanding, and insight. Many are not familiar with the language of business and feel uncomfortable and sometimes intimidated when they are asked to interview a top business executive.

- *In general, the media don't understand how to deal with business.* Reporters on deadline often call companies, large and small, and expect the President or Chief Financial Officer to be available immediately to answer questions. Television stations sometimes call a few hours before the evening news and want to shoot footage in a plant, or get a quick interview in order to develop a local angle for a national news story. They are skeptical when they are told that the executives are tied up in meetings, or the plant manager is taking customers on a plant tour, or a special event is taking place and their needs simply cannot be met satisfactorily on such short notice. All media would get better results if they spent more time building personal contacts with key business sources and developing background files on companies likely to be the sources of news.
- *Many reporters don't do their homework.* A reporter assigned to develop a story about a company can arm himself or herself in advance with a great deal of information that is useful in putting the story in its proper perspective. Annual reports, public speeches by executives, position papers, fact books, booklets, and company histories can put the enterprising reporter on the right track. Too often, a reporter has done little or no reading in advance, is not familiar with the company and its product line, does not know the major issues affecting the industry of which the company is a part, and does not know the company's competitive position in that industry. Such lack of knowledge makes it difficult for him or her to spot the most productive story angles and ask the right questions. Many good stories are missed that way.

Opportunities

So much for the problems involved in relationships between business and the media. There are also many opportunities, and these are far more important than the problems and risks. There are many reasons why business should talk with the media.

1. *The business story is important and needs to be told.* Business provides most of the jobs and products and services in our society and is the direct or indirect source of most of the taxes. Business is far from perfect, but it does have many significant accomplishments and it makes incalculable contributions to the development and progress of the world in which we live. The growth of business and industry in the Southeast, for example, is one of the most important regional stories of this century.

2. *If business doesn't tell its story, the critics of business will.* Critics of business are not in short supply. They include consumerists, environmentalists, intellectuals, academics, organized labor, regulatory bureaucrats, idealists, political populists,

"If business doesn't tell its story, the critics of business will."

and liberals. Some of the things these people say are true. Unfortunately, many of the things they say are distorted, exaggerated, or false. Business will not win this game by staying on the sidelines.

3. *The public gets most of its information from the media.* Newspapers, television, radio, and magazines provide the public with a steady stream of information, interpretation, and comment. This avalanche of words affects public perceptions and attitudes, has some influence on how people vote, and has a substantial impact on the marketplace in which companies sell their products and services. Public perceptions and attitudes about business, shaped to a large degree by the media and the people who deal regularly with the media, are reflected in the laws legislators pass, in the regulations government agencies enforce, and in the decisions courts of law and juries hand down. If business wants to fare well in the court of public opinion, it would do well to tell its story openly, accurately, and clearly.

4. *Openness, candor, accessibility, and cooperation help build understanding, respect, trust, confidence, and positive relationships.* Discussing what business can do to regain the trust of the American people, Robert V. Krikorian, Chairman and Chief Executive Officer of Milwaukee-based Rexnord, Inc., told a conference in Washington last year that business should "make sure that all our communication with the public states all the facts clearly, accurately, and fairly." He went on to say that business "should provide an open and informative channel of communication." Business people need to understand that their lack of enthusiasm for public debate of issues, their tendency to avoid dealing with the media, and their reluctance to be open and accessible leads to misunderstanding, suspicion, lack of confidence, coolness, and negative relationships.

5. *Correct information is always better than lack of information.* When the media decide that a subject is news, they are going to develop stories about that subject based on the best information they can obtain. If the subject involves business, then business usually will come out best if it contributes pertinent information. Failure to do so often assures that business will fare poorly. Lack of adequate information can only lead to stories that are incomplete and unbalanced.

Guidelines

If you are going to deal with the media, there are some basic guidelines you should follow. They will not guarantee that you will always come out a winner, but they will certainly improve your score.

1. *Get to know the media you will deal with most often.* Local or area media, financial media, and media that specialize in news about your industry are likely to call you fairly often. To the degree that you can, visit with them, meet the people who might be calling you, and learn as much as you can about their operations, interests, and deadlines.

2. *Develop a basic fact kit about your company.* This should include facts about your sales and earnings, information about your products and channels of distribution, a few financial charts that show your trends, photographs and brief biographical sketches of key officers, photographs and descriptions of some of your plants or operations, and a skeleton outline of your organizational structure. Make sure the media you deal with have this material, and make sure it's kept up to date.

3. *Develop a track record of openness and accessibility.* Media people are human. They appreciate news sources who are open and accessible because they encounter far too many who are not. You will fare much better over the long run if you are cooperative and responsive and demonstrate that you recognize the validity and importance of the media in a free society.

4. *Be friendly and helpful: don't be an adversary.* Media people can't possibly know as much about your business and your industry as you do. Recognizing this, you can be very helpful if you volunteer background information that would enable the reporter to do a better job. A friendly attitude goes a long way toward putting a reporter at ease, and a better story will result. There should always be a healthy tension between business and the media because you play different roles in society, but your relationship should not be hostile or adversarial.

5. *Keep your comments brief, simple, and candid.* Short sentences and short comments are easier to understand, and usually assure greater reporting accuracy. Avoid business jargon that may not be clear. Repeat key points to be sure they are picked up and understood. Be as candid as possible. Put yourself in the reporter's place. Imagine how you'd feel if you were trying to write a story on a subject you did not know thoroughly.

6. *Recognize public concerns as well as your own.* It is easier to look

at things from the point of view of your company and your industry. But it's also a good idea to back away a bit and take an objective look from the point of view of the public interest. Business in general is perceived by the public as having responsibilities that reach beyond profits.

7. *Determine the reporter's main interests in advance and then do your homework.* Usually, a reporter has one or more general areas of interest. If you can determine what these are, assemble as much information as you can, then try to simplify it so you can cover the key points briefly and clearly. That will help both you and the reporter do a better job.

8. *If you don't want to read it or hear it, don't say it.* Don't go off the record. It's dangerous. If you do it too much, reporters have a hard time remembering what was on the record and what was not. You also put the reporter in an awkward position by disclosing information and then saying "you can't use it" or "don't quote me." Either say it for quotation, or leave it alone.

9. *Never say "no comment."* A "no comment" response nearly always comes out as a negative reply. It is far better to say, "I can't answer that question and I'd like to tell you why." Then explain carefully. For example, the information might be of advantage to a competitor. Or the timing might not be appropriate. Or the information might bear on a subject your employees or customers should know first.

10. *Never ask if you can edit a reporter's story.* Some reporters will call you and read sections of a story to you to be sure the text is accurate. Some publications will have researchers call you to double check facts and figures. On a particularly complex story, some reporters will ask you to review sections to ensure they do not make an error. But it is improper to ask a reporter to submit a story to you for review and editing. It's not your place to edit the publication. That job belongs to the editors.

11. *Develop standard responses for questions you won't answer.* Some questions are asked frequently and involve subjects you will not discuss as a matter of policy. It is wise to have standard responses that you use consistently when such questions are asked. For example: "As a matter of company policy, we do not predict our earnings." Or, "As a matter of company policy, we do not confirm or deny reports that we are considering a company as a candidate for acquisition."

12. *Avoid overexposure.* Cooperation with the media is great. Overexposure is not. Good judgment suggests a middle course, and it's best to be candid about that. If you take the time to explain your situation, most media people will understand.

13. *Avoid no win situations.* Now and then you will get inquiries, or requests for interviews, from reporters, newspapers, magazines, or television programs that specialize in controversy and "when did you quit beating your wife" questions. You aren't going to win that ball game, and you'd be wise to decline to play. You'd also be wise to turn down media requests when the timing is bad, or the subject is inappropriate from your point of view.

These are some ground rules for dealing with the media. If you follow them consistently, do your homework, and adopt a positive attitude, your relationships with the media will be positive and enjoyable and perhaps even profitable. You won't be a hero every time, but, then, who is?□

The Man-Made Fibers Industry: What Kind of Future?

The United States' man-made fibers industry maintains a competitive position envied by many. But the industry's dominance is waning. Here, then, are some alternative future strategies.

David A. Ricks, Jeffrey S. Arpan, J. Carl Clamp, Herbert H. Hand, and Brian Toyne

For thousands of years, the world depended solely on natural sources for all fiber needs. Wool and cotton were the predominantly used fibers. The first man-made fiber (rayon) was not even discovered until 1855 and not commercially produced until 1891. The first United States production of rayon began in 1910. Then, in the space of a mere 13 years (1939-'52), nylon, acrylic fibers, polyester, and polyester "wash and wear" products were introduced. The world has not been the same since.

As a textile input, the consumption of man-made fibers has grown dramatically over the past four decades. In 1940, for example, the man-made fibers (MMF) industry supplied only 10 percent of all fibers used in United States textile mills. This share has exhibited a pattern of continuous growth, reaching 75 percent in 1981. The exhibit following illustrates this growth and contrasts it with the continuing decline in consumption of each of the major natural fibers.

Man-made fibers have become extremely popular and important because they can be produced at very competitive prices and in a wide variety of forms. Fibers or fiber blends have been produced with highly desirable wear and care characteristics and often have other important features — such as flame resistance.

This 1983 study was undertaken in order to formulate future policy and strategy alternatives for United States companies in the increasingly competitive man-made fibers (MMF) industry. The authors were advised by a board of 14 senior operating executives representing nine leading American MMF companies, the leading trade association, and a major customer of man-made fibers.

Global Developments

While the rise in total production of all fibers increased 80 percent in the past two decades, the production of man-made fibers rose more than 300 percent. Within this general environment of growth, there were several major developments.

First, the particular world market shares of specific geographic regions, e.g., industrial nations, changed significantly. More specifically, MMF producers in developed nations lost their market shares to those in less developed nations (LDCs), and they generally reduced their regional capacity while capacity expanded in LDCs. Second, changes in regional capacity were not always the result of additional MMF firms entering the market. In fact, the number of MMF firms actually declined over the period, but the geographical spread of their operations increased. Third, global employment in the MMF industry steadily declined. Only in a few countries did employment expand in the period 1975-'81. And of those that did expand, only two were major producers: Taiwan and South Korea. Employment contractions were particularly significant in Western Europe and Japan. Finally, there was a major expansion of international trade in man-made fibers. Europe, throughout the period, remained the most active international trader (in terms of both total import and total export volume), while the United States and Japan remained the largest net exporters (exports minus imports). Most of the international trade expansion was driven by rising per capita income, the emergence of strong textile and apparel industries in many LDCs, and the restructuring of textile complexes in the developed nations.

Several major technological developments occurred affecting both products and processes. New fibers and fiber combinations were produced; new texturing, drawing, and spinning equipment was developed; and more energy efficient

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processes were employed. Virtually all were generated by fiber or equipment firms in developed nations in attempts to increase or improve product features or to lower production cost. The new technology was basically labor- and energy saving and was increasingly expensive to develop or acquire — a factor partially responsible for the contraction in the total number of MMF producers in the world.

While the 1950's through the mid-1970's were generally years of significant trade liberalization of most manufactured products, this was not the case for the products of the textile complex. Numerous bilateral trade restrictions were enacted (primarily nontariff), as well as some significant multilateral ones. While these arrangements were oriented primarily toward apparel and textile trade, they clearly impacted the MMF industry because the bulk of its output is utilized in textiles and products made from textiles. These trade restrictions also encouraged the growth of MMF industries in developing nations. Furthermore, the slowdown in the world trade liberalization movement experienced since the late 1970's has been accompanied by an even more restrictive trade environment for textile complex products, e.g., the renewed and tougher Multilateral Fiber Arrangement of 1982.

Apart from these international activities, many regions and individual nations pursued more specific policies for their respective textile complexes. These policies ranged from the development and nurturing of new complexes or new segments thereof (mostly in LDCs) to sizable rationalization/restructuring policies (largely in developed nations).

When analyzing previous corporate strategies, it is not possible to formulate many generalizations on a global basis. There were many major differences in corporate product lines, corporate structure, geographic spread of activities, domestic markets, government conditions, etc. If any generalization can be made at the global level, it is that virtually all forms sought to increase their world market share (at least in a specific product category) and hoped to prevent erosion of their domestic market share. The net result throughout most of the past two decades was significant overcapacity and lower corporate profitability, leading to, among other impacts, a reduction in the total number of firms.

Notwithstanding these changes of the past 20 years, the United States MMF industry holds a comparatively strong competitive position. Although not as dominant in world markets as it once was, the United States group maintains an outstanding record for the development of quality products and efficient processes and has a broad base of experience. In addition, most United States plants are considered sophisticated, modern, and efficient. United States fiber producing firms generally are financially sound, and their total incomes typically are not wholly derived from fiber sales. This combination of diversification and financial strength provides them with an ability to withstand financial setbacks and business cycles.

In sum, the United States MMF industry is managing fairly well, and, for the most part, should continue along its current path. However, given findings that indicate a continued decline in United States industry dominance and the forecast that LDCs will continue to expand their capacities — especially in the production of low-cost and commodity fibers — some United States strategy modifications seem appropriate.

The optimal strategy for a particular firm depends on the forecasted economic conditions in both its home country and the world, on its product mix and market share, and on its objectives and competitive resources. Virtually no one predicts a *decline in world* consumption of man-made fibers over the next decade, and few forecast "no growth." It is generally forecasted that both the world and United States MMF markets will grow, and that the world growth rate

EXHIBIT. United States Mill Consumption of Fibers (Million Pounds)

Fiber	1940	Percentage	1960	Percentage	1970	Percentage	1981	Percentage
Man-Made Fibers*	482	10%	1,875	29%	5,501	57%	8,722	75%
Cotton	3,959	81	4,196	64	3,774	40	2,703	24
Wool	408	8	480	7	273	3	153	1
Raw Silk	60	1	7	—	2	—	2	—
Total	4,909	100%	6,558	100%	9,550	100%	11,580	100%

Source: Man-Made Fibers Fact Book Update: Statistics, Man-Made Fiber Producers Association, Inc., undated, p. 3.

*Including textile glass fiber.

"In 1940, the man-made fibers industry supplied only 10 percent of all fibers used in United States textile mills. In 1981, that figure reached 75 percent."

will be greater than that of the United States. (The world growth in MMF consumption usually is forecasted to be greater than world economic growth in general.) However, aggregate growth rate forecasts are not sufficient because man-made fibers are utilized in three rather separate markets: apparel, household furnishings, and industrial use. Each of these end use sectors is expected to have a different growth rate. Therefore, growth forecasts for these specific sectors must also be considered before appropriate strategies can be developed.

Data currently available suggest that

- world demand for apparel and industrial use fibers will be above world economic growth rates in general,
- world demand for household furnishings will be about the same as world economic growth rates,
- the apparel market will experience less growth in the United States than in the rest of the world,
- the household furnishings market will increase at about the same pace in the United States as in the world, and
- the market for industrial use fibers will have an even greater growth rate in the United States than in the world.

The recommendations that follow are based on the forecasts just stated. Although this set of forecasts is the most widely accepted, alternative economic forecasts do exist. Consequently, after discussing the strategic recommendations based on these forecasts, we will also address the strategic implications of alternative forecasts.

Recommendations

Perhaps the most important factor affecting the future of the United States MMF industry is the economic health of its downstream customers — especially those in the apparel industry. Many actions need to be taken to strengthen the positions of these downstream customers if they (and, consequently, that market for United States MMF producers) are to survive. Some strategies will be essentially defensive in nature. For example, the international competitiveness of the United States apparel industry is expected to decline even further, with a resulting increase in the United States trade deficit in apparel. For MMF producers, the major task will be to try to hold onto their market share, or to slow its decline. In contrast, the expected high growth of industrial use fibers offers an opportunity for more offensive strategies since the United States industry already leads in the market development of such fibers.

The research team identified several long-range corporate and industry strategies that could help increase the future international competitiveness of the industry. These strategies are grouped under the following four categories: (1) relationships, (2) market research, (3) specialization, and (4) technology.

Relationships

Although all companies should be concerned about their relationships with both suppliers and their customers, the MMF industry must be especially concerned for its customers' customers — particularly the apparel industry. The entire textile complex is an interdependent group of industries that rely heavily on each other. United States textile mills buy primarily from American fiber producers and, in turn, sell their fabrics primarily to United States apparel manufacturers. Just as the United States textile mills would be hurt if the American apparel manufacturers went out of business or stopped buying United States textiles, United States fiber producers would suffer if they lost their American markets. Because the MMF companies are the dominant, and financially strongest, link in the textile complex, the other segments look to the MMF producers for support. Although the MMF companies have already done several things to foster good relationships with their customers, a few suggestions for additional support are discussed below.

- *One or more MMF producers should consider forming an export trading company that would specialize in exporting products manufactured from man-made fibers.*

Such a company, which could be similar in some ways to the new General Electric export trading company (specializing in machines and electrical equipment), would greatly increase the exporting ability of many United States firms — especially the textile mills and apparel manufacturers. An export trading company is well within the capabilities and resources of several fiber producing firms, but it is not within the capabilities of most textile or apparel manufacturers. Recent changes in United States law and forecasts that predict declines in the value of the dollar encourage the consideration of the formation of an export trading company in the very near future.

- *Alteration of the credit terms available in the sale of fibers is*

another way the textile mills could be assisted.

The 30-day guaranteed price proves difficult for many textile mills. Longer time guarantees would be appreciated by the mills since they have no easy way to hedge the price fluctuation risks — especially during slack times. MMF producers can hedge many of the price determinants more easily and, therefore, make whatever price adjustments are necessary to reflect these hedges and reduce the risks industry wide.

• *Additional support for organizations such as the Institute of Textile Technology would also improve MMF producer-customer relationships and could even be of benefit to the entire textile complex. In fact, any ways the MMF producers can help their customers reduce costs, more successfully use man-made fibers, and/or discover new markets would prove beneficial for both customer and fiber producer.*

Just as the fiber manufacturers must search for new markets and new uses for their fibers, so they could also help their customers discover new markets and new product uses and thus strengthen their own position. In short, more emphasis needs to be placed on helping the entire textile complex become more effective and efficient. All segments of the system are hurt when parts of the complex are distressed. Subsystem effectiveness and efficiency should not come at the expense of system effectiveness and efficiency.

Market Research

A wide variety of activities can be considered elements of "market research." Analysis of current and projected buying motives, customer preferences, competitive activity, and economic developments are all part of market research and are all key components of strategic planning. Some fiber producers have overlooked a few of these elements. Others have placed a disproportionate emphasis on the production of fibers and have underestimated the value or scope of more comprehensive market research. *As global competition increases, companies need to reconsider the importance of marketing and market research in their operations.*

• *One of the first steps in improving market research is the collection of better data.*

Although most MMF companies have fairly sound data, there are data gaps and unnecessary duplications of efforts. Furthermore, companies often are unable to check data for reliability. The industry needs to pursue an idea that was proposed in 1981 — that MMF companies pool data with those firms working with the Cotton Council and with the American Textile Manufacturers Institute. The resultant data bank would be of considerable value to all segments of the textile complex and would also enable MMF producers to serve their various customers more effectively. All parties affected should reopen talks concerning this idea in an effort to reach an agreement that would be mutually beneficial. Without such cooperation, it is difficult for MMF customers to expect market research support from the fiber producers, and it is more difficult for the producers to offer such assistance. Furthermore, discussions with the Justice Department reveal that no antitrust violations exist in such pooling of information projects.

• *The MMF industry should help organize and sponsor a market research institute, perhaps similar to, or in conjunction with, the Institute of Textile Technology.*

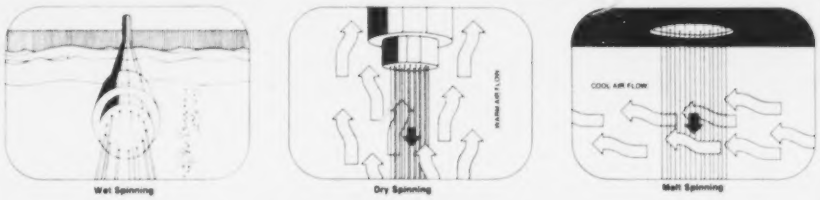
Such an institute could help uncover data critically needed by the industry. This activity is also one the recent interpretation and legal changes in antitrust laws now permit and even encourage.

• *While continuing their search to identify those markets with the greatest potentials, market researchers should more carefully consider both old and new uses for existing products.*

Some firms appear to be relying too heavily on existing product uses in established markets. Although it is not generally recommended that a company attempt to sell a new product in a new market, most firms are quite capable of introducing existing products into new markets or developing new uses for their products in existing markets. Since market research helps improve a firm's ability to estimate what consumers, competitors, governments, and the economy will do, firms that are not considering all of these dimensions are not fully preparing for the future. In fact, failure to consider any one of these components can lead to missed opportunities, declining market shares, and/or financial losses.

• *Better market research can help identify the price sensitivities in each market.*

Corporations then can better identify current opportunities as well as those markets that will become attractive should the dollar decline in value. Admittedly, in the future, MMF producers in the United States are more likely to be successful



Most man-made fibers are formed by forcing a syrupy substance (about the consistency of honey) through the tiny holes of a device called a spinneret. The filaments emerging from the holes in the spinneret are then hardened or solidified. The process of extrusion and hardening is called spinning. There are three methods of spinning man-made fibers: wet, dry, and melt spinning. When the filaments are passed into a chemical bath to be solidified, it's called *wet spinning* (left). Acrylic and rayon are produced this way. When filaments are solidified by being dried in warm air, it's called *dry spinning* (middle photo). This process is used in the production of acetate, acrylic, modacrylic, spandex, triacetate, and vinyon. When the fiber forming substance is melted for extrusion and hardened by cooling, the process is called *melt spinning* (right). Nylon, olefin, polyester, and glass are produced by the melt spinning process. (Photos from the Man-Made Fiber Producers Association.)

exporters if they sell higher value added products rather than commodity fibers. This is true because the latter are more price sensitive (and, hence, highly subject to changing exchange rates) and because the companies often compete with subsidized foreign firms. Nevertheless, opportunities are likely to develop even in these highly competitive markets, particularly under conditions of surplus capacity and a weak dollar. Therefore, United States producers still need to search for such opportunities.

• *Foreign market opportunities would be enhanced if there were fewer foreign trade barriers.*

The United States fiber producers should continue encouraging the government to strengthen and coordinate its efforts to reduce these trade barriers. Enhanced international market research by United States MMF producers could help identify the most critical trade barriers or unfair competitive practices that need reduction or elimination. Regardless of the intelligence gathering network of the United States government, American firms are in the best position to identify those foreign restraints most critical to overseas opportunities.

Specialization

In the past, efforts of individual firms to expand capacity and thereby gain market share in particular product or geographic markets have resulted in overcapacity, lower profits, and, in some cases, losses and ultimate withdrawals from the markets. This phenomenon in the MMF industry evolves primarily from the fact that capacity additions tend to be large due to production economies of scale. In short, several independent corporate desires to become "the market leader" often have created financial problems for all firms.

• *In the future, firms should consider more judiciously greater market and/or product specialization.*

For example, because of the expansion of government subsidized production of commodity fibers in some foreign countries, United States firms should consider expanding their production of specialty fibers. Those of interest include fibers with high value added aspects that cannot easily be duplicated and fibers that currently hold only small markets. The use of a low-cost strategy appears desirable only if the firm already enjoys a proprietary advantage or is currently producing and selling large volumes efficiently and profitably.

• *It is also critically important for a firm to determine the number of different commodity fibers it should be producing in the United States.*

Many firms should drop their minor production of commodity fibers — especially those fibers intended for export to foreign markets or the ones likely to become imported into the United States in major quantities. In an overcapacity situation, only strong firms with major market shares or special characteristics are likely to profit. It might be wise, therefore, for certain companies to consider forming joint ventures with firms experiencing problems of overcapacity in the same fibers. As some companies have already demonstrated, such ventures can then effectively reduce overall capacity to more profitable levels.

• *Each United States MMF producer should more carefully assess its strengths and weaknesses, concentrating its efforts in the markets and products in which it is strong.*

Each producer should expand into new markets with its strong products, or enter existing strong markets with new product uses. For example, those firms with proprietary or cost advantages should continue to push their existing products while searching for new product uses or markets.

• *The ability to adapt quickly and appropriately to local conditions has played an important role in the survival of most firms; as international competition grows more intense, this ability becomes even more important.*

In fact, United States MMF producers enjoy certain advantages over foreign exporters in some American markets, regardless of foreign govern-

"Foreign market opportunities would be enhanced if there were fewer foreign trade barriers."

mental subsidies. This is because United States producers are closer to American customers and, therefore, are generally better able to assess current trends and provide better service. It is especially critical for firms that wish to maintain sales of noncommodity fibers in the United States to stay abreast of domestic trends, to be aware of buyer preferences and needs, and to shift even more toward the production of fibers that require changes pertaining to local conditions.

• *Firms without major proprietary advantages or major market shares should consider specialization through development of specific, specialized end use fibers.*

Industrial use fibers and those for household furnishings offer the best opportunities, particularly in terms of lessening the impact of foreign competition.

• *In order to compete with foreign producers, firms should also examine the possibility of producing fibers that require extensive expertise in their manufacture.*

Those fibers that are more difficult to produce, require higher skill levels, need frequent modification, and/or require closer attention to changes in local tastes and needs are beyond the capabilities of many foreign firms.

Technology

The United States MMF industry has striven continually to reduce the number of steps required in fiber production runs, thus creating shorter processes. The industry also has consolidated production to increase efficiency and has developed or acquired new energy saving technology. Engineers have sought to improve fiber and dye quality, and to create additional specific end use fibers. Robots have been introduced into the computer controlled processes and have been utilized in the handling of materials. All of these activities have helped the United States MMF industry maintain its position as a world leader.

• *There is still the need to continue searching for new products and developing new processes and product uses.*

This holds true for both the MMF producers and their downstream customers. In fact, some of the techniques and methods currently employed by MMF producers could be helpful to the textile complex if implemented downstream. Assistance given by the MMF producers in implementing a more efficient production system in the apparel industry, for example, would be beneficial to the entire textile complex.

• *It is important for MMF firms to stay abreast of the new technologies being introduced in downstream sectors.*

For example, the MMF industry should consider more carefully the fiber implications resulting from the introduction of the new weaving and knitting machines.

• *It should be noted that a natural conflict surfaces when individuals in the production area push for efficient, continuous runs and those persons in marketing press for specialized products with high margins but short production runs.*

Both types of fiber production may be possible for some firms, but top management should be careful not to assume that both are desirable, or that only one or the other is desirable. Before such high-level decisions are finalized, all aspects should be considered.

Alternative Economic Scenarios

The recommendations offered above, as mentioned earlier, are based on the assumptions and forecasts summarized in this article. Again, world and/or United States growth rate forecasts may differ from those assumed here. Therefore, if conditions change so that an alternative forecast appears more likely, or, if a company believes that other forecasts are more appropriate, then that firm must realize that the strategies previously discussed may need modification.

Although an infinite variety and combination of possible forecasts exist, the procedure for using forecasts to modify strategy is rather straightforward.

(1) The lower the forecasted world rate, the less important the internationally oriented strategies become, and the more important the domestically oriented strategies become.

(2) The lower the forecasted United States growth rate, the more important both domestic and international strategies become (due to slower demand in the United States and greater international competition).

In other words, lower world growth suggests that less emphasis should be placed on world markets and more emphasis directed toward domestic market research, customer relationships, product specialization, and technical developments. Lower United States growth suggests that greater emphasis should be placed on expanding world markets and more emphasis directed toward holding onto domestic markets via improved customer relationships, market research, product specialization, and technical developments.

While the industry strategy recommendation and alternative forecast

scenarios described above are useful in shaping future competitive strategies for United States MMF producers, not all firms will be able to pursue these maneuvers successfully. Ultimately, each firm must tailor its strategy to fit its own competitive abilities and market position vis-à-vis its competitors.

Government Policy Considerations

All firms also need to consider government policies and regulations. The purpose of this article is not to recommend what government policy should be with respect to the MMF industry. However, it is clear that the success and viability of many of the corporate strategy recommendations presented earlier are, to a large extent, dependent on existing and future policies of the United States government. It is also clear that government intervention has played a critical role in the structural adjustments undertaken in Europe and in the structuring and development of the textile complexes in Asian countries. Therefore, foreign government policies will also affect the success and viability of future United States corporate strategies.

Discussed below are some suggestions directed to the United States government should it desire a more internationally competitive MMF industry. These suggestions should not necessarily be construed as recommendations advocated by this research team. Rather, they should be seen as either activities observed to have worked with some success on other countries, or as ideas that could be used by the United States government even if they are not yet being utilized by other governments.

- *For the United States textile complex to survive and enhance its competitiveness domestically and overseas, a shift in government policy from a reactive to a proactive approach would appear to be beneficial.*

That is, United States government policy should not be set in reaction to domestic and/or international economic changes. The issues involved are too serious and the economic consequences too severe for the policy to be approached in a reactive, piecemeal fashion. Rather, evidence suggests that the United States government should take a more comprehensive and coordinated approach in the development and/or modification of policies, programs, and incentives for these highly interdependent industries.

- *The United States government should give serious consideration to the creation of a Textile Complex Economic Policy Office (not to be confused with the Office of Textiles, Department of Commerce).*

Among its duties would be responsibility for insuring that the economic policy process of the government includes a comprehensive, coherent, and coordinated evaluation of the economic repercussions on the competitiveness of the tri-industry complex.

- *The United States government, with the help of industry representatives, should reevaluate the Export Trading Company Act of 1982 in light of the specific needs of the fibers and fiber end use industries.*

While the United States government did improve the international competitive environment for many American-based firms through passage of the Export Trading Company Act of 1982, serious drawbacks for particular industries still exist. For example, most foreign trading companies are supported financially by either their governments or banks and financial institutions owned by holding companies that also operate the trading companies. Although the Export Trading Company Act permits United States banks to become involved in export trading companies, the banks will not necessarily commit themselves to the same degree as some foreign institutions. Additionally, no subsidies or financial support from the United States government is provided.

- *The United States government may need to become more sensitive to the trading strengths and needs of the fiber and fabric industries and to the implications of the MFA on the international competitiveness of these industries. It should also consider pursuing trade barrier reduction policies enabling these industries to compete more freely in foreign markets, and develop incentives and/or policies that would make United States fibers and fabrics more attractive to foreign producers.*

Because an increasing amount of future world consumption of fibers and fiber end use products (textile and nontextile) will occur outside of the United States, a major increase of United States exports could result. However, trade barriers are extensive in most countries and have generally been increasing (except for tariffs). Such trade protection clearly hinders the international competitiveness of the United States textile complex and reduces the potential for United States export success.

- *The United States government needs to evaluate carefully the economic and competitive impacts that existing and future regulations may have on the international performance of specific industries, such as the MMF.*

In many cases the central issues of such evaluations should be how to reduce the scope and rigidity of existing regulations and how to resolve the differential effects of regulations (new and old) on the performance of United States industry. It is also necessary to consider ways to improve the measurements of the costs, benefits, and side effects of regulation on the entire textile complex rather than on the separate industries. Additionally, the process of settling problems stemming from government-imposed regulations needs to be expedited.

There has been an enormous increase in the extent, complexity, and cost of United States regulations pertaining to industry. EPA and OSHA regulations, while admirable for the objectives and goals that underpin them, appear to have had adverse and conflicting effects on the companies that comprise the United States MMF industry and on the ability of that industry to compete internationally. □

The (No Longer) Staid Banking Industry

Change has been the only constant during the past several years in the once staid banking industry. In an interview conducted by Jan Collins Stucker, two veteran professors of banking tell us why the dizzying changes have been occurring, and hazard some predictions about the future.

Olin S. Pugh

B&E REVIEW: Before we discuss your views on the future of banking, Dr. Pugh, let's talk about your background in the field.

PUGH: While I have never been an operating banker, I did begin teaching money and banking the very first year I started teaching — 34 years ago. I established the finance department at The University of South Carolina in 1956, and, in 1957, began teaching a course in commercial bank management. I've held the USC Chair of Banking, which is sponsored and subsidized by the South Carolina Bankers Association, since 1961. And, of course, I have done consulting work with dozens of banks over the years.

B&E REVIEW: Why has the deregulation of the banking industry in the past few years taken place?

PUGH: It was recognized in the banking world 20 years ago that banking was too tightly controlled and regulated, so deregulation has been an ongoing process. But it is more noticeable now because of the overall federal policy toward deregulation of industry. And, it's been accentuated by such things as technology. In addition, the Monetary Control Act of 1980 and the Garn-St. Germain Act of 1982 have expanded the range of allowable services available to all financial institutions.

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Oliver G. Wood, Jr.

B&E REVIEW: Dr. Wood, what is your background in banking?

WOOD: I teach commercial bank practice and policy to undergraduates at The University of South Carolina, plus a money and capital markets course to graduate students there. I have taught the basic money and banking course at USC for 19 years and at the S.C. Bankers School for 11 years. In addition, I have assisted with the formation of a number of banks in South Carolina during the past 13 years, including First Palmetto State Bank, in 1970, and Republic National Bank, in 1975. I have been on the Board of Directors of Republic since its inception. I call that a "post doc" in banking! Banking changes often happen before we in the academic world recognize them, so being a Director enables me to learn much about real-world banking as it happens. This enhances my bank management course.

B&E REVIEW: Why has the financial industry undergone such tremendous changes in the past few years?

WOOD: Deregulation is one reason. But another one is that the nonbank, nonfinancial institutions chose to go into certain aspects of the banking business. Merrill Lynch, in effect, became a bank when it offered a money market fund and allowed customers to write checks on it. This led to a

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"Banks have every reason to believe they can survive and still remain the number one grouping in relative size. But remaining Number One is not going to be easy. They are going to have to work at it."

PUGH (continued from p. 25)

B&E REVIEW: What further changes do you see in the banking world in the near, and distant, future?

PUGH: From a structural standpoint, there will continue to be mergers. The total number of banks, inevitably, will decline somewhat. I don't think that most banks will disappear, but there will be a reduction in numbers by 40 percent or so. Obviously, accelerated trends toward electronic funds systems; ATM (Automated Teller Machines) systems; and nationwide, or perhaps worldwide, ATM systems are in the offing. The technology is here. Now it's only a matter of implementation and consumer acceptance.

Interstate banking, too, is going to increase, but gradually. We already have interstate banking in fact, if not in law. Money is transferred by wire among all states; accounts are solicited nationwide. We just don't officially have branch banking across state lines. What Congress will do, I think, is let nature take its course and avoid a political fight. It will simply stand aside and let the bankers sneak in interstate banking.

In addition, banks are going to have to adjust to newer competitive forces in the marketplace. Money market funds are a good example. There are going to be additional plans and programs of other institutions that will create constant market pressures. So the banks will have the feeling of being pursued. Since banks have been in the lead, they are the "head dog" of the pack. But this means everyone else wants to knock them off, in a business sense. So banks are going to feel under a great deal of competitive pressure.

B&E REVIEW: Will banks be replaced by this competitive pressure?

PUGH: I can't foresee any institutional arrangement that would displace the banking system. Banks have every reason to believe they can survive and still remain the number one grouping in relative size. In other words, they ought to stay bigger than savings and loan institutions, or mutual savings banks, or insurance companies, or money market funds, or credit unions, or any other competing force. But remaining Number One is not going to be easy. They are going to have to work at it.

B&E REVIEW: Is there anything particular in, say, the next 15 to 20 years that bankers are going to have to do

WOOD (continued from p. 25)

counterattack by banks to do the same thing — to have interest-bearing checking accounts and to get into the securities brokerage business and all the other things they are trying to get into now. What triggered Merrill Lynch and the other bank competitors may have been the bank holding company movement in the late 1960's, which allowed banks to form companies that could do traditional "nonbank" business.

B&E REVIEW: Has the consumer benefited from all these changes?

WOOD: Yes, although he's been offered a lot of things he will probably never use. Still, because of lower interest rates on his loans, during the last tight money period he was able to borrow at 5 percentage points less than prime-rated businesses. That was due in part to competition.

B&E REVIEW: What changes do you foresee for the banking industry in the next few years?

WOOD: We're going to see consolidation in the form of more mergers. There is some evidence that costs rise as a financial institution grows. Therefore, the large banks may not have the cost advantages the small ones do.

B&E REVIEW: If the larger banks don't have the cost advantages, why are they merging into bigger ones?

WOOD: Part of it is empire-building. Empire-building is alive and well. What we're probably going to end up with is a system of money center banks holding a very large percentage of deposits, a number of large regional banks, and a number of strong community banks that have good management and can control expenses. The role of the savings and loan remains to be seen.

B&E REVIEW: Will the increased competition continue?

WOOD: Yes. But out of competition come winners and losers. Those who can't control their expenses when they compete won't continue to play the game. Those who can will be the winners.

B&E REVIEW: Which means management is important.

WOOD: That's right. Management is the key in the next decade.

more of, or less of, to survive? Do you see them having to change their modus operandi?

PUGH: I think they will have to adapt for the most part within the structure that now exists. I don't think there is going to be a complete turnover of the institutional structures in this country. Therefore, bankers, to be successful, will simply have to keep doing what they are now doing, only more efficiently for better cost effectiveness. They will also have to try always to be close to the cutting edge on the newer devices and schemes. They will have to adapt to consumer changes of attitudes. I believe they will be able to do a reasonably good job in these regards.

B&E REVIEW: Do you think banks in the year 2000 are going to be totally different from the banks of today? Would we recognize them?

PUGH: Well, of course, over a 20-year time span undoubtedly there will be many changes. What you will see will be fewer personnel on the floor, so to speak, in terms of customer contacts. You will also see more automated equipment, more wire transfers of funds — perhaps some emanating from the home itself and offices, which means you won't have as many people in the teller positions and things of that nature. But, in the credit areas and processing and records systems there will still be many people involved and there will still be clerical workers as well as bank Presidents.

B&E REVIEW: Nobody in between?

PUGH: There will be some in between — I don't think it will be a Buck Rogers scenario, in the sense of no people and just punching numbers. It won't go that far.

B&E REVIEW: Do you see the changes of the last several years as being good for the consumer?

PUGH: Fundamentally, yes. They put the consumer in the position of being better paid for his savings and capable of negotiating a realistic contract with a financial institution. For example, banks are now starting to advertise small CDs or money market accounts that allow the individual to go in and decide what maturity he wants. He can get one for 96 days, 181 days, or 30 days, or anything else he likes, so it gives the household a better opportunity to plan and adapt to its own needs.

B&E REVIEW: Will banks need new types of managers? Will business schools have to train prospective bankers differently?

WOOD: The business schools have got to focus on people who understand *business.* Now that sounds like a simplistic statement, but these people have to understand that you must take in more than you pay out. That means make a profit. We must have managers who are analytical and who understand the *economics* of the firm. I'm afraid we're turning out a lot of people who don't understand that. They may understand marketing; they may understand accounting. But the most important thing is to have someone who understands the *whole* picture — all facets of the business. He or she has got to be a well-rounded person.

B&E REVIEW: What kinds of changes will banks have to make to compete successfully in the next decade and a half?

WOOD: For any enterprise to survive, it must have information. In the case of banks, it will be financial management information. Banks will have to know how to analyze it, understand it, and act on it. They will have to understand the economics of the firm.

B&E REVIEW: Do you see more bank failures in the near future because of the increased competition and all these changes?

WOOD: There will be fallout — just as there is in the hamburger industry. When you build too many hamburger stands, they cut themselves to pieces competing. So, yes, there are going to be bank failures. There is a real question about the risks in banking today. Perhaps there are more risks now than ever before.

B&E REVIEW: As banks do more merging and there are some failures, will the risks increase on the part of customers?

WOOD: Perhaps so. Go back 10 years and ask, "Is Social Security secure?" The average person would have said, "Yes, it's secure." Then we found out that Social Security's security depended on people's willingness to tax themselves and pay the benefits. The same is true with insurance. The people have to be willing to tax themselves to fund the

"Changes are occurring swiftly. One of the biggest changes is that barriers against women in bank management are eroding, and in the years to come, these barriers will break down even further."

B&E REVIEW: In terms of other sorts of changes, can we continue to have as many as we have had in the last five years?

PUGH: I am sure many banks feel we can't. They believe change has been so rapid they can't catch up with it, and, perhaps, to some degree, they may be right. Congress has been especially active in making changes, but it is not as likely to make such drastic moves in the immediate future. Throughout our nation's history, all basic monetary and banking reform has come about under some kind of so-called emergency or crisis condition — either a war or some other major threat to a financial institutional grouping. So Congress is not really going to take up arms and aggressively push strongly for a big change in a short period of time simply on the basis of public interest. It would take a panic situation, and, hopefully, we won't have any more of those! So I don't think we will have as much legislation as we have had in the last two or three years. □

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amount to bail out banks. Are they willing to do it? Good question.

B&E REVIEW: Is there any question in your mind that the traditional, staid image of the banking industry is no longer correct?

WOOD: Generally, it's no longer correct. Changes are occurring swiftly. One of the biggest changes is that barriers against women in bank management are eroding, and in years to come, these barriers will break down even further. Banks tend to hire the best people, and some of the best students in Colleges of Business Administration are women. They are capable of thinking and analyzing well. They are just as capable as men in the business world, and they perform well in managerial positions. □

A Strategic Response to the Productivity Challenge

For more than a decade now, productivity has been the "hot topic" in American business circles. Still, the productivity war has yet to be won. It won't be, says the author, until strategic resource management is put into effect.

Carlton P. McNamara

For the last 10 years, the most popular topic in business publications, industrial conferences, and corporate offices has been productivity. The need for its improvement has been clearly established in the American business community. Statistical evidence and unfavorable trend comparisons with Japan, West Germany, France, and Canada have been generated to underscore the problem's severity and dire implications for future competitive posture.

A new productivity industry has virtually developed overnight. It is the strategic planning phenomenon of the 1970's, but with a new message. Cookbooks on productivity improvement have already been published. Specific recipes appear in most major business periodicals. New publications and associations either have been started or are on the drawing boards. A plethora of corporate programs are being reported in the business communications media. The "how-to-do-it" stage has arrived. It would be impossible to find a reasonably informed businessman in American industry who is not aware that a successful response to the productivity challenge has become management's top priority in most companies.

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The Productivity War

One could easily reach the conclusion that the productivity war is clearly being won. But is it? Has a subject of such generally accepted importance really generated a meaningful corporate response? A noted management philosopher offered some rather biting commentary on the state of productivity in United States corporations when he said,

> Even the most successful business works at a low coefficient of performance as measured against its potential — the economic results that could be attained were efforts and resources marshaled to produce the maximum yield they are inherently capable of.*

At first blush, this blanket indictment of corporate productivity may seem a bit harsh and overdrawn. Even if it isn't, some might take comfort in the realization that these observations were made 11 years ago and, hopefully, reflected not so much on the successful companies but on those non-industry leaders. Then, again, is the need for productivity improvement really confined to a specific segment of American industry? Have our "starts" done significantly better in their recent performance?

*Peter F. Drucker, *Management* (Harper & Row, 1973), p. 46.

The evidence is not exactly reassuring. Consider the situations of four companies usually placed on the well-managed pedestal.

- General Motors resisted the trend to fuel efficient vehicles, delayed the required retooling investment, and experienced a series of extraordinary financial losses.
- Bank of America's 31 percent profit decline in 1981 and steadily eroding market share of its California branch system were attributed to lack of modern technology, reluctance to develop new products or enter new markets, resistance to hiring outside personnel, and slow internal executive mobility.
- Texas Instruments is undergoing a massive reorganization and attempted change in its corporate culture to reverse a performance trend of delayed product introductions, declining profits, and loss of its United States market position in semiconductor sales to Motorola, Inc.
- Xerox Corporation's share of the United States plain-paper-copier market skidded from 67 percent in 1976 to 45 percent in 1981, and the costs of producing its machine are, in some cases, 30 to 40 percent higher than those for comparable Japanese copiers.

These examples in the automobile, financial services, semiconductor, and

office equipment industries can be replicated in the textile, steel, and other industries. To recite a litany of United States companies that once were relatively unchallenged giants and industry leaders but now have seriously deteriorating competitive positions has a definite "Monday-morning-quarterback" flavor to it. The important issue is whether these events and trends could have been prevented and what lessons have we learned to insure that these situations will not surface in other industries. Why is it that, given the available resources at the disposal of our large corporations, management failed in preparing their respective companies for the significant competitive and performance crises now confronting them? And what are the implications for management's actions in the future?

Management and Productivity

While many industrialists, economists, academicians, and government officials have presented a plethora of theories for the productivity problem, most early discussions focused on a supposedly poorly motivated labor force with declining skills and union-inspired uncooperative attitudes, coupled with governmental policies that discouraged capital investment in modern plants and new equipment. These factors presented natural targets for criticism, but they were clearly not the real causes. Too many critics confused scapegoats with culprits.

Although corporate attempts to address the "how to" questions are becoming increasingly pervasive, many efforts are misplaced. Not enough has been done by those who primarily caused the problem and who should now be "carrying the ball." An objective assessment of managerial practices in the last two decades reveals three factors that largely contributed to the present productivity crisis in American industry:

- an insidious success syndrome that systematically undermined an ongoing commitment to excellence and eventually bred complacency and smugness in too many companies;
- perceptual blind spots concerning the need, requirements, and responsibility for meaningful productivity improvement; and
- the lack of an overall system to prevent continuous mismatches in the annual allocation of operational resources.

Success and Complacency. There is a well-known sports axiom that winning a world championship is much easier than retaining so lofty a position. Whether it is sports, business, or any other vocation, success inevitably breeds complacency. While one thinks of Detroit's aversion to small cars and Xerox Corporation's resistance to small copiers, this reality applies to many top management personnel who, in their "twilight years," become increasingly conservative, wedded to the status quo, and influenced by the intoxication of previous successes. A look at the career path of the typical American executive is helpful in explaining this phenomenon.

Most top managers run a challenging obstacle course as they progress through the ranks. Because the odyssey from functional manager and division president to group executive and senior management is usually fraught with competition, high stress, and substantial personal sacrifice, they understandably possess a high degree of confidence in their ability. Their positions confirm the perception of each that "I must have been doing something right or I wouldn't be here now." This self-assurance, working in combination with the historical awe accorded American management, hardly fosters self-examination.

This complacency is fueled by the fact that very few companies have a management system that insures an ongoing productivity effort. It has never been a strategic priority for most companies. A notable exception is Lear Siegler Inc. (LSI), a highly diversified industrial products company, which has included overall productivity improvement as one of its six major corporate objectives since 1970. It is more than coincidence that LSI has achieved a well-above-average performance record compared to other conglomerates for both profitability and growth.

The hard learned lesson has always been unmistakably clear. When one is an industry leader or considered the crème de la crème of managerial performance, the motivation for change is very weak. While there are unique traits that describe well-managed companies, an ongoing commitment to excellence ranks at the top. The unsuccessful firm changes only out of necessity. An industry leader changes because of its resolve to remain productive in a dynamic business environment. Citicorp, General Electric, and IBM are classic examples of successful corporations that refuse to rest on their laurels. The development of negotiable CDs (certificates of deposit) in 1961, an accelerated blueprint for international market expansion, the pioneering decision to become a one-bank holding company, electronic banking, and long-term strategy for the consumer market exemplify how Citicorp, our most profitable financial services corporation, has met the challenge of change and remained productive.

A major shift in GE's overall strategy includes significant technological investment to achieve higher product quality, greater market share, more dominant industry leadership, and long-term profits for its more than 200 businesses. This comprehensive change ("becoming a world-class competitor") is occurring when its profit position is clearly better than most other United States companies. An analyst perceptively observed that GE's new Chairman is trying "to introduce a sense of urgency when there is no emergency."

IBM's ambitious growth strategy for the 1980's follows a decade when this industry leader achieved a 300 percent increase in both profits and revenues, doubled its production capacity, and retained a 65 percent share of the mainframe computer business. This strategy includes significant capital investment to achieve

lower-cost production, use of independent distributors for lower-cost distribution, a major management reorganization to foster further market segmentation, and greater focus on potential high growth markets within the computer industry.

These three companies clearly have resisted the temptation of false security in staying with the familiar when confronted by new demands, competitive challenges, and potential threats to their strong market positions.

Perceptual Blind Spots. A second obstacle impeding proper analysis of, and improvement in, productivity concerns barriers that are more internal than most managements would like to believe. An effective response to the productivity challenge depends on management's erasing some deep-rooted biases and accepting five basic realities.

- Productivity is basically a management problem. It is management's responsibility to improve it, and largely management's failures that caused it.
- Productivity (like profitability) is an end result and should not be attacked directly. If the right issues are identified and the appropriate action plans implemented, productivity improvement will be achieved.
- Because productivity has been postured as a "national disease," there has been the understandable search for a "Jonas Salk Vaccine." There are no instant panaceas.
- Because productivity represents the result of many decisions and actions, meaningful correlation between a specific management technique and productivity is not a practical expectation.
- Real productivity improvement is long term and requires commitments that may negatively impact short-term performance but more than repay the investment in the future.

Mismatching "the Horses and Courses." A third factor is management's longstanding habit of indiscriminately allocating operating resources between high and low impact activities. Some recognizable manifestations include standardized inventory management systems, which overcontrol inexpensive items and undercontrol high cost material; similar marketing and sales resources dedicated to different profit regions, districts, and accounts; voluminous computer printouts of operating data with only a small percentage necessary to monitor performance accurately; and purchasing or accounts payable departments routinely performing their function — regardless of volume, cost, or dollar considerations. These examples reaffirm an inescapable fact. Too many operational planning and budgetary systems focus exclusively on resource levels and not on the strategic mix where there is real performance leverage.

Strategic Resource Management

When many executives decided to review their corporate planning systems in the early 1970's, performance indicators usually revealed sales growth, flat earnings, and declining profitability on the company's investment. It was this financial snapshot that influenced the introduction of strategic business planning. From the comfortable vantage point of hindsight, the methodology for allocating operational resources should also have been examined. It is becoming increasingly clear that meaningful productivity improvement will occur only when both corporate and operating resources are strategically positioned in a reinforcing manner.

The problem of managing a successful productivity effort largely suggests its own solution. It highlights a role for both management and its consultants. The central need is not to devise and help implement new or more sophisticated productivity programs. It is to help insure that a company's commitment to productivity improvement becomes a way of life and not a "one-shot" response to a competitive challenge. The central need is not so much for counsel on *how* to improve but, rather, on *where* to make those changes. These are strategic issues. A successful response to the productivity challenge requires that a meaningful and lasting foundation be created for all future improvement efforts. The American worker has been exposed to so many panaceas over the years that the newest cure-all is greeted with ever-increasing skepticism. If there is not some underlying rationale, the newest fad becomes the next priority.

Productivity Requirements

Applied research and the results of productivity efforts in many companies suggest that there are three essential requirements for achieving meaningful productivity improvement at the operational level: (1) establishment of an improved process for allocating operating resources, (2) development of practical tools to accomplish this task, and (3) appropriate motivational systems to convert the concept into a way of life.

Process. The phrase "strategic resource management" was carefully chosen because strategic is such an overused word in today's business lexicon. It is not a quick fix gimmick, disguised cost reduction technique, or theoretical construct, but a practical, proven management philosophy that matches operational resources and key results-producing activities. To distinguish what is new and different from existing planning schemes, specific emphasis is placed on the important dimensions of results impact and scarce operating resources. The focus is on three basic questions. Which functions truly impact a company's results? Which activities primarily just generate costs? How should a company allocate its operating resources to reflect these realities? Consider three companies that have accurately answered these fundamental questions.

Caterpillar Tractor Co. has achieved industry leadership by concentrating its operating resources on high-

"Managing a successful productivity effort largely suggests its own solution. The central need is not to devise and help implement new or more sophisticated productivity programs. It is to help insure that a company's commitment to productivity improvement becomes a way of life and not a "one-shot" response to a competitive challenge."

quality products, complete servicing, and a strong marketing orientation. Emerson Electric Company's successful growth strategy of acquiring small electrical equipment companies has been reinforced by management's allocating the necessary internal resources to achieve competitive R&D performance, low manufacturing costs, and high quality levels. Procter & Gamble Company has remained a leader in the package goods industry by establishing a superior technological base for every major new product entry, and then dedicating significant internal resources for production operations and promotion to achieve a commanding market share position.

A major reason for the success of these three companies is that the resource needs of each operating function are placed under the same rigorous screening process their top managements employ in allocating corporate resources to specific businesses. This is the underlying theme of strategic resource management. For example, who gets the capital or R&D money in a conventional strategic business planning analysis is determined by two factors: industry attractiveness and a company's business strength within that industry. Functional resource priority should also be determined by two variables: the function's impact on a company's results and its present level of performance. Because there are too many possible errors if oversimplified, single variables are applied, a multifactor assessment is employed.

The rationale for resource allocations to each operating function is very straightforward and is presented in Exhibit 1. Resource priority is given to those functions (upper left) that have a significant impact on a company's results and have achieved an above average performance record. Selective resource allocations are necessary for those operating functions that have either a poor performance record but do impact results, or a good performance record and less impact on results. Resource reductions are called for those functions (lower right) that have a very limited impact on results and have been viewed historically as ineffective performers. This is not theory. It is the same basic logic that underlies all successful strategic planning systems.

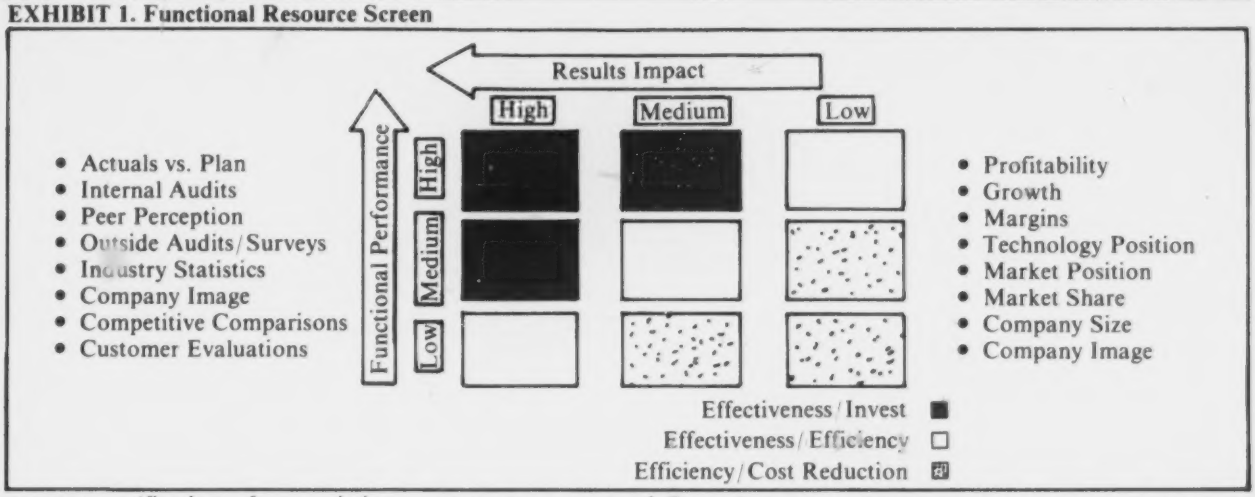
In summary, cost reduction actions performed in the high activity, low impact functions generate additional resources for those core functions that significantly affect results. Because a validity review separates unwarranted operating budget increases from genuine opportunities with real payoff potential, a company's operating resources are strategically allocated in a cost effective manner. The choice is not effectiveness or efficiency but priorities and balance. It is the emphasis. There is a reaffirmation of what the successful and well-managed company has always understood. The first objective must be effectiveness. It is the anchor that helps insure that the "right things are being done right."

Some Case Histories. If managerial resources are going to be allocated in a more strategic manner and desired gains in real productivity improvement achieved, management must perform a comprehensive analysis of each operating function. The results of these screenings provide a rational basis for future resource allocations and productivity efforts. Let us consider the actual experiences of 10 operating divisions in six *Fortune 500* companies that have formally implemented strategic resource management, the steps they followed, and the results they achieved. While each company operated in a different business sector — consumer products, aerospace, defense, electronics, industrial products, and conglomerate — they all adhered to the same six guidelines.

1. Management's initial tasks in these companies were to define their functions' missions and to identify each function's output in specific terms. What is actually produced — hardware, sales orders, reports, designs, purchase orders, technical advice? The need for a well-conceived, effectively communicated mission statement and objective definition of actual contribution was underscored by three examples.

An industrial marketing function contained cost/pricing and contracts administration capabilities. While its supposed charter was the generation of profitable sales volume and future business opportunities, both marketing and quasifinancial activities were being performed. Management's sub-

EXHIBIT 1. Functional Resource Screen



sequent clarification of two mission statements and organizational reassignment of all nonmarketing activities to the Finance Department eventually helped resolve a problem of resource dilution and unsatisfactory performance.

A common error in many productivity efforts, confusing activity with accomplishment, repeatedly surfaced in each company. Personnel in a preliminary design function were continually characterized as nonproductive because they were spending excessive time in reflection and apparently idle talk. Based on the unique nature of design work and a review of actual performance, however, it was confirmed that this group had generated designs for the company's largest sales and profit maker and numerous other successful consumer products.

An Operations Assistant and his staff were highly visible in an industrial plant as they conducted studies and requested operating data from their company's line management. Although the industrial company was in a major retrenchment mode and this staff group was performing a multitude of "make-work" assignments to justify their own existence, most observers gave them high marks for productivity and performance. The obvious lesson is that an objective base line for validating both direction and actual contribution is a crucial first step in laying the foundation for future productivity improvement.

2. Given each function's mission statement and output, management's next step was to define what was actually being done. This was a focus on activities. All tasks involved in producing each function's output (down to the lowest supervisory level) were sorted into three performance categories — high results impact, routine, and unnecessary. This was not a time management exercise but a major commitment to identify those core functions that truly impacted company and functional performance. Some companies employed a Pareto logic. Which 20 percent of their activities effected 80 percent of their results? Others just used common sense and the experience of senior executives who understood what "drove the business." While the actual criteria for determining functional importance varied among the companies, seven major variables were usually employed: projected impact on profits, revenues, technological advancement, operating costs, schedule, product quality, and overall market position. Several companies factored in such additional questions as, "What would be the consequences of significant breakage in each function?" "What is the company's ability to recover from an error of omission or commission?" Following this analysis of projected results impact and performance record, each function could be profiled and plotted on the matrix presented in Exhibit 1. It was learned that the assignment of specific weights to those variables and the eventual development of a single numerical score did not provide increased validity or improve the overall evaluation process. What did happen was that top management in each company made a collective judgment based on the importance they attached to the factors presented in each functional summary.

3. The analysis and historical operating budgets provided the litmus test for validating the level and mix of managerial resources in each company. Who had received the financial support, high skilled manpower, executive time, and other managerial resources? High impact, or high activity? Significant mismatches were revealed in all companies, with the high activity and low impact functions clearly being given more operating resources than was justified. Some brief examples provide insight into the actual data generated. An equal number of personnel and the same skill mix in an electronic company's Material Control function were being indiscriminately allocated between direct project support and the noncritical, less important general plant support. While management in the consumer products company underscored the importance and exceptional performance record of its design, development, operations, and sales organizations, the ratio between its line personnel and staff functions had clearly skewed to the indirect side. There were more people in the industrial products company's Human Resources function dedicated to administrative, support, and clerical activities than the functions of management development, career pathing, and employee training. An aerospace executive discovered that over 50

"Substantive and long-lasting productivity improvement will be achieved only when there is a strategic reallocation of operational resources to those core activities that truly impact short- and long-term results."

percent of his company's support personnel in an administrative services function were spending 40 percent of their time manually fixing and checking the reliability of a computerized management control system. He noted, "We had too many people checking our system rather than having the system support an important operation."

These comparisons of activity importance and present resource allocations helped focus management attention on two questions: "Were there specific functions and activities in each company that were highly important but presently underresourced?" "Where had each company allocated excessive resources to its less important activities?"

4. The answers to these questions targeted some functions in each company for resource investment or reallocation. For example, in the consumer products company, there was a definite need for a different "chief-Indian" mix in the marketing function — more Product Managers and fewer Vice Presidents or Directors. In the high technology companies, the skill mix in Engineering was modified to include more practical experience and specialized technical exposure. There was a need for dedicated resources in the industrial products company to perform a strategic planning function that should have been undertaken some time ago.

5. Because successful practice of strategic resource management also requires a concerted effort to bring the cost base of the low impact, less important functions down to a more realistic level, given their limited results contribution, a series of cost reduction actions were generated in each company. A review of these commitments revealed seven common action items: reducing selective personnel, eliminating nonessential activities, performing tasks differently, reducing the skill mix, combining tasks, restructuring, and simplifying systems or procedures. While actual results varied in the 10 operating divisions, management achieved an average cost reduction of 25 percent in each high activity, low impact function.

6. It was also learned that practical application of strategic resource management requires its adaptation and modification when a company's overall business environment or strategy shifts. For example, the economic recession in the unexpected technological development of a major competitor required either new screening factors or the changing of existing ones to reach a more accurate judgment of functional importance and performance.

In summary, these company experiences suggest that the successful practice of strategic resource management provides four major tangible benefits: (1) identification of meaningful and realistic cost reduction opportunities, (2) increased management attention on the true results producing activities, (3) generation of valuable resources for potential reallocation, and (4) repositioning of these resources to those core operating functions most important to a specific company's performance.

In reflecting on their implementation process, one executive commented,

> Our operating budgets are set and adapted, not by using a mechanical formula or fallacious historical base lines, but by objective judgment of a function's importance and performance record.

Another executive considered the impact of the economic recession.

> The rationale for determining both the level and mix of operating budget resources protects our high impact, core functions from unrealistic, across-the-board cost cutting in these unfavorable economic times.

Motivational Systems. For strategic resource management to be converted from a sound management philosophy into a way of life, a company's performance appraisal and incentive compensation systems require modification. The rule of thumb is very straightforward. While the important, critical functions and activities should be managed to insure a high level of performance (error avoidance), the low impact functions and activities should be managed to generate a satisfactory level of performance (some error acceptance). In describing this management style, an aerospace Executive Vice President observed,

> We had to achieve agreement among all levels of our management to accept a certain degree of risk concerning unsatisfactory performance in our low impact and high activity areas. If we wanted to achieve significant improvement in our management productivity, we had to accept some shortfall in our noncritical functions without an overreaction or we would always have overcontrol in the less important activities.

This "overdisciplining an error syndrome" manifested itself in the electronics company where excessive management time and people were

being dedicated in a project management function to correct errors in a noncritical area. As the department manager recounted,

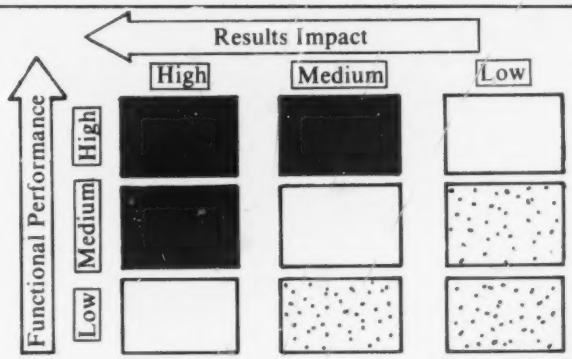
> Our total operating costs were often higher than the potential cost of solving an actual mistake. It just didn't make sense from a cost effectiveness viewpoint to have such high visibility, so we now use a periodic audit to minimize any possible out-of-scope situation.

The practical implications of this resource allocation strategy for appraising managerial performance are presented in Exhibit 2. An important step for each company in applying the concept was either to appoint or to validate that there was a matching of the "horses and courses" — the "A" performers for the high impact functions, the "B" team for the medium impact functions, and the rookies or proven cost reducers for the low impact functions. Following this review of managerial assignments, the development of an appropriate method for appraising productivity performance at the operational level was undertaken. Exhibit 3 shows the relationships between key productivity dimensions, functional missions, and incentive or merit compensation. In the high results impact functions, a functional manager's bonus or merit increase should depend more on his effectiveness — accomplishing those few critical activities that truly drive his function's and overall company's performance. Performance indicators include maintenance or investment in the required skill mix, facilities modernization, manufacturing cost structure, technological advancement, appropriate management control systems in place, and successful implementation of functional strategies or marketing programs.

Effectiveness and Efficiency

Because low impact functions and activities primarily just generate costs, a manager's bonus should depend more on his efficiency — achieving satisfactory performance with a minimum amount of resources. Performance indicators include the tangible results of major cost reduction activities — staffing size and trend, size and trend in operating budgets, appropriate input/output activity ratios, and changes in the skill mix and activity consolidations. Successful practice of strategic resource management requires that performance appraisal and incentives compensation systems be designed to help management keep a balanced view of the two

EXHIBIT 2. Strategic Resource Management and Administration of Incentive Compensation



Functional Category	Management Requirements	Weighting of I. C. Based on	
		Effectiveness	Efficiency
High Results Impact	Best Performers	80%	20%
Medium Results Impact	"B" Team	50%	50%
Low Results Impact	Rookies and Cost Reducers	20%	80%

major dimensions of productivity — effectiveness and efficiency. Unless a different mix in awarding bonuses to functional management is applied, practical experience tells us that the strategic allocation and operational positioning of resources will not insure meaningful productivity improvement and appropriate performance focus. For those lower levels of functional management that do not participate in a divisional profit sharing or incentive compensation system, their merit increases should be completely related to their effectiveness and efficiency performance.

This methodology is presently being employed in many companies concerning the differentiation in management selection and reward systems to insure that an overall strategic business plan is successfully implemented. It has a proven track record for helping focus general management attention on accomplishing a specific strategic business mission. There is relevance for its practical application at the functional management level. The experiences of these six companies have significant implications for meaningful productivity improvement. As long as functional managers receive clear instructions as to the strategic role of their departments within a company's overall productivity picture, they can succeed, whether it is to stress effectiveness and the performance of high impact core activities, or to focus more on efficiency by streamlining a high activity function.

Looking to the Future

The Italian economist Pareto postulated a law in the early 1900's stating that the significant items in a given group normally constitute a relatively small portion of the total, and most of the items, even in the aggregate, are of relatively minor importance. While this concept explained distribution of the world's wealth, it also clearly applies to improving management productivity in American industry. The multitude of productivity programs being initiated throughout United States industry are surely required, but their ultimate impact must be questioned. If the overall objective and action plans are truly to match operational resources and results-producing activities, then America's return to, or retention of, industry leadership will be enhanced. But — if specific programs become the ends and not the tactical means to increased managerial effectiveness and operating efficiency, productivity improvement may be minimal, short-lived, and just another business fad.

A commitment to strategic resource management reaffirms a basic reality managements know but don't always practice in their thoughts and actions. Substantive and long-lasting productivity improvement will be achieved only when there is a strategic reallocation and positioning of operational resources to those core activities that truly impact short- and long-term results. □

EXHIBIT 3. Matching Functional Performance Factors and Productivity Mission

Functional Productivity Mission		Divisional Performance
Effectiveness	Efficiency	Existing Criteria (Depending on level of management and participation in company's bonus system)
• Functional Strategies • Marketing Programs • Manufacturing Cost Structure • Functional Skill Mix • Facilities Modernization • Technological Advancement (R&D) • Organizational Structure • Management Control Systems	Cost Reduction Actions: • Staff Size & Trend • Operating Budget Size & Trend • Input/Output Activity Ratios • Activity Consolidations • Changes in Staffing Mix • Elimination of Redundant Tasks • Streamlined Systems & Procedures • Functional Restructuring	• Profits • Sales • ROI/ROAM • Other Performance Targets • Special Projects
Results Impact		
High — 40%	10%	50%
Medium — 25%	25%	50%
Low — 10%	40%	50%

Note: The above percentages and their respective weights are presented to show relative emphasis. Individual companies should modify these absolute numbers according to their unique situation and overall goals.

BUSINESS & ECONOMIC REVIEW

Tax Strategies for the '80's

James Edmunds Wilson

Tax Aspects of Divorce for the Business Owner

Tax/financial planning and divorce at first blush may seem to be mutually exclusive topics, but particularly when a business owner is involved, a little planning at this important juncture can go a long way. Divorce, even under optimal circumstances, is a traumatic experience, both emotionally and financially. For a business owner, however, it can spell financial disaster if not planned for properly.

Marital settlements, for example, often require the husband to transfer stock, real estate, or other property to the wife. The terminology of the governing Internal Revenue Service (IRS) code (regarding transfers) is "husband to wife." Obviously, it is becoming increasingly common for this situation to be reversed.

Ownership Interest

The issues raised in this context can include whether the wife will receive an ownership interest (if she does not presently enjoy such) in the business and, if so, in what form and with what restrictions on its transfer. If she is to receive ownership interest, how will the interest be valued? Will she receive dividends or otherwise share in growth? Further, will she have rights against the husband's pension or profit sharing plan interest? Will there be tax ramifications affecting the transfer, both in terms of tax on gain and gift tax?

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The husband's transfer of stock in the business to his wife, in satisfaction (partially or fully) of his support obligation, is considered a sale for tax purposes. He will be liable for the tax on the gain to the extent the value of the stock or other property exceeds his cost or depreciated basis. However, a mere equitable division of community or jointly-owned property between spouses will not be a taxable transaction.

If the husband happens to receive a loss on the transfer, the loss generally will not be deductible since the taxpayers (husband and wife) are related parties.

Marital property settlements are, to a certain extent, set up within the parameters of individual state law, that is, whether the state has equitable distribution or community property statutes or some hybrid of both. Many states have rewritten their domestic relation laws to concentrate on individual contributions to the marriage and the comparative needs of the spouses and children in dividing marital property and assets. These statutes are referred to collectively as "equitable distribution laws."

The effect of the equitable distribution laws that attempt a nontaxable division of marital property is still somewhat unclear. The IRS is currently considering the various tax implications of a recent ruling. Tax professionals stress that until this area is resolved, the parties to the divorce should agree in advance how to allocate any potential additional tax burden. For instance, one spouse may agree to indemnify the other against unforeseen future tax liability. In community property states, each spouse is theoretically entitled to one-half of all marital property.

Closely held business owners often find themselves in a no win situation with regard to division of an ownership interest in the business. This is further complicated if, as is typical, the business comprises the majority of the couple's net worth from a value perspective. The husband may agree that his spouse is duly entitled to some kind of ownership interest, but reaching an agreement as to exactly what form and how it is to be valued can be difficult. This value must be established and agreed upon, not only during the divorce negotiations, but, equally as important, after the divorce is finalized. That is, if the wife desires to sell her interest in the business enterprise at a future date, how is it to be valued and who will purchase the ownership interest (the husband? the corporation itself?). The existence of a formal buy/sell agreement can save additional problems, and is generally wise planning for any corporation.

Equitable Distribution

Many experts agree that, ideally, the spouse operating the business should retain ownership interest. Equitable distribution does not necessarily mean equal. There are lots of gray areas in the development and testing of various state laws. New York, for example, has a fairly complex law dealing with a series of tests to determine whether property is marital property (acquired during the marriage) or separate, nonmarital property (acquired via a gift, inheritance, or prior to the marriage).

In terms of effecting a division of business property, it is often desirable that the assets remain intact and undivided. Moreover, in the case of ownership interest in a professional practice, it is important to recognize the near impossibility of partitioning

the professional's ownership interest in the firm. The division of marital property should be something analogous to one partner's buying out another partner in a business. After all, a spouse is an economic partner in the marital partnership. The essence is to attempt to leave the business intact by the outgoing spouse.

A good deal, however, depends on the value of other family assets. For the assets to remain intact, some kind of amenable agreement will have to be designed for the outgoing spouse, an agreement that usually takes the form of alimony. Whether the spouse is given an interest in the business, or whether she receives alimony in lieu of the business interest, the valuation of the potential interest is quite important. Value is a very imprecise, difficult concept to grasp. Such factors as whether the business is salable, the importance of the individual to the ongoing success of the business, and the potential for the majority interest of the business to be sold, all must be taken into consideration.

Generally speaking, the wife wants to receive her alimony free of tax, and the husband desires a tax deduction for its payment. But tax laws bar a favorable result for both parties. The one who derives the benefit will force the other to bear the economic burden of paying tax. Alimony payments are deductible only if "periodic," "required," and the result of a "marital relationship." Simply inserting a provision in the divorce decree stating that certain payments will be deemed alimony oftentimes is just not enough. Again, an intermingling of state law and Internal Revenue Code come into play. For example, "periodic" can have different meanings. It can be a definite amount for an indefinite period of time, such as $1,000 per month for life, or an indefinite amount for a fixed time frame, such as 25 percent of the payer's income for five years.

Retirement Plan Benefits

Another method of payment being used in divorce settlements is assignment of a portion of qualified (tax-exempt) retirement plan benefits. This is fraught with danger from the viewpoint of possibly disqualifying the retirement plan. The IRS has said that as long as the plan benefits are currently in pay status, and the payments made from the plan are in accordance with a court order, the plan will not lose its qualification. However, if the payments are made prior to the benefits' being in pay status, the plan could lose its qualified designation. In some cases, a retirement plan participant may have retired early, but the benefits are not currently payable. Once again, if immediate payment is made, the plan risks disqualification. Merely dividing or sequestering benefits on behalf of the payee spouse, until such time as those benefits are in pay status, should not jeopardize the plan. □

BUSINESS & ECONOMIC REVIEW

Information Technology Trends

Sara Schechter-Schoeman

Computer Crime: Issues and Trends

Computer crime has become a hot topic in recent years. It is difficult to pick up a big city newspaper or computer trade journal without seeing an account of computer fraud or theft of proprietary information. Captions in just one issue of *Computerworld* lying on my desk recently included "Ex-DP (data processing) Chiefs Plead Guilty to $1.3 Million Scam," "DP-Related Crime Rate Swelling?" and "Two DPers Caught in Arizona."

Reported cases of computer crime only touch the surface of a much larger issue. Many, or perhaps most, incidents never reach the law enforcement system. Corporations are afraid that public knowledge of incidents in which they have been victimized would suggest problems with internal security controls and erode investor or consumer confidence. According to a recent article in the *Computer/Law Journal*, annual losses from computer crime or abuse may range between $100 million and $300 million.

South Carolina is not immune to computer crime. Changes in the way computers are used and in the technology itself have increased the opportunities for computer crime and abuse everywhere. Many computer systems were designed on the assumption they would be used in a closed environment where all users would be data processing employees working under the watchful eye of the data processing director. But this is no longer the only way in which computers are utilized — in South Carolina or elsewhere. Furthermore, even though the overall technological capability of computers has advanced tremendously, built-in security safeguards have lagged behind, particularly in the area of increasingly popular micro- and mini-computers.

Most significantly, as more and more people purchase home and business computers, experiment with the fundamentals of programming, and learn how to establish a communications link with large computer networks, the opportunities for computer crime will increase dramatically. The widespread availability of automated teller machines and the move toward home banking also will open up new areas of vulnerability. Broader availability of computers and knowledge of how they function mean a greater exposure to computer crime losses for both the public and private sectors.

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Approaches to Computer Crime

Computer crime and abuse must be dealt with on many different levels. The importance of internal security controls and other good management practices cannot be overemphasized. In addition, families and schools should, in my view, play a role in building awareness about what types of computer-related activities are acceptable and what types are not. In this column, however, I am not going to present tips on internal management controls, the role of early education, or the possibility of civil lawsuits. Rather, I will address a fourth approach to computer crime — that of specific criminal statutes.

Computer crime legislation is important in its own right, for a variety of reasons. Beyond its obvious punitive function, the law can serve also as both a deterrent to computer crime and as a device to help clarify and define society's attitudes toward types of behavior we haven't had to consider in the past or which we considered innocent. A case in point might be the young computer hobbyists who, in a test of their computer skills, will try to "break into" another computer system through the telephone.

Traditional Criminal Statutes

Many traditional criminal laws, such as statutes on embezzlement, fraud, and theft, have been used to prosecute computer crimes around the country, but with mixed success. Certain problems have emerged in trying to "shoehorn" new categories of crime into old laws. None of these problems, however, is intuitively apparent just from reading through the text of the laws. Abuses involving a technology unimaginable even 50 years ago just do not fit neatly into the framework of a criminal law system that started to take shape several hundred years ago. For example, in some states and at the federal level, neither erasing data nor obtaining unauthorized access to data will lead to criminal liability as long as there is no physical damage to property. In a recent incident involving numerous entries of a national electronic mail network, federal authorities are trying to prosecute under wire fraud statutes since there is no federal law against entering a computer without authorization.

A more widespread problem arises from the traditional legal definition of "property." In many states, computer programs and data in electronic

form are not considered property and, therefore, cannot be "taken" under the theft statutes, which require an "asportation" (taking away) of property. There may be no theft, either, in a situation in which an unauthorized copy is made of extremely valuable proprietary data. This peculiar result occurs because the original file has not been "taken."

An additional problem can arise even in states where certain computer-related items are property which, therefore, can be "taken." In these situations, the issue is how to measure the loss. If a disk pack is stolen, will the loss be considered to be just the replacement cost of the disk pack, or the value of the information stored in it as well? This would be analogous to a film developer's losing irreplaceable wedding photographs and reimbursing the customer only for the price of a new roll of film. The general question raised by these examples is how far do either the facts of a case or the statutes have to be pushed to get the two to mesh? Are the results ever really satisfactory?

National Trends

Dissatisfaction with the existing state of the law has been growing. The first state computer crime bill was enacted in Florida in 1978. In the few years since then, 18 other states have enacted similar legislation, with bills pending in still others. At the federal level, a computer crime bill is still stalled in Congress. Because of the recent widespread publicity given the successful long distance "raids" made on federal computers at Los Alamos, New Mexico, and on the Sloan-Kettering Cancer Institute in New York, hopes for eventual passage of federal legislation are much higher now than in the past.

Most states that have attempted to bring their criminal codes into line with modern technology have done so by writing an entirely new computer crime statute. A small number, however, have chosen instead to modify the definition of "property" in the existing criminal laws so that computer programs and data are clearly included. This redefinitional approach is simple to undertake and may have the advantage of allowing law enforcement officials and the legal community to use statutes with which they are familiar. There is a danger, however, that penalties may be inconsistent and that certain types of abuse still may not clearly fall within the criminal law.

There are many advantages to drafting a totally new bill. First, it forces an appraisal of at least some of the policy issues involved in the use of computer technology. One of the major challenges faced by the drafters of new legislation is the real difficulty in deciding what previously unexamined and perhaps tacitly accepted behavior should now be considered unlawful. For example, how should "sharing" of software among friends or co-workers be handled? Should adolescents who succeed in "breaking into" a data bank without otherwise causing or intending harm be treated the same as someone who uses a computer to embezzle bank assets or who runs a private consulting business using a government computer and government time? Are certain minor misuses of computer resources, such as distributing a recipe through a word processing terminal, issues that should be dealt with by the legal system, or might they better be handled by internal organizational procedures?

A second advantage of a new statute is that a law created specifically for the purpose is more likely to address the entire spectrum of crimes and abuses. A third advantage is that consistent, appropriate penalties can be written into a computer crime bill. Under the present law, in many states it is possible for a very serious computer offense to fall only within an existing misdemeanor category. In a well-publicized example several years ago in California, a person used a remote terminal and telephone lines to access a computer and attempt to erase data which would have cost well over $10,000 to recreate. Even if the perpetrator had been successful, the only statute under which he could have been prosecuted was the misdemeanor of making an obscene or harrassing phone call, punishable by a $25 fine!

South Carolina's Response

Last spring, South Carolina Attorney General Travis Medlock appointed a citizen's advisory committee on high technology crime, composed of people from law, banking, and data processing in both the public and private sectors. This committee has concluded that South Carolina needs specific computer crime legislation. Members have considered both policy and legal questions in drawing up the broad outlines of a new statute.

In November 1983, the Attorney General endorsed the report and the statute drafted by the Advisory Committee. The latter will be introduced into the legislature early in the 1984 session. □

BUSINESS & ECONOMIC REVIEW

Economics Corner

Ronald P. Wilder

Exciting Times in Telecommunications

For the past year, newspaper and magazine articles have outlined the effects of the January 1, 1984, divestiture of the American Telephone and Telegraph Company (AT&T) on its customers. Telephone customers, however, won't be the only group affected by this far-reaching reorganization. The restructuring, ordered as part of a 1982 settlement of a federal antitrust suit, will also lead to major changes in the telecommunications industry and many related business fields.

Competitors

Perhaps the most exciting implications of reorganization will be for the competitors and potential competitors of AT&T. There are a multitude of strategic opportunities for firms in a number of industries. Manufacturers and distributors of electronics, computers, and communications equipment may find new markets as a result of the reorganization. Because Western Electric no longer has a corporate tie with the local telephone companies, the market for telephone equipment will become much more open to competition. This increased market access will extend to such areas as the retailing and servicing of telephone equipment. Telephone customers will continue to have the option of owning their own terminal equipment, and the reorganization will accelerate the pace at which non-AT&T equipment has access to the market.

Ronald P. Wilder is Professor of Economics in The University of South Carolina's College of Business Administration. His research interests include industrial economics and government policy toward business.

Service Firms

The effect of the reorganization will extend beyond direct competitors of AT&T. The decentralization of many corporate headquarters staff functions from AT&T in New York to the seven new regional holding companies should mean new opportunities for regional business services firms, including such diverse fields as legal, accounting, and consulting services firms. Similarly, regional banking and financial service firms should find new business associated with the financing of the new regional holding companies. A related effect will be the salutory impact of increased trading volumes on brokerage and securities firms, because of the 8-to-1 relationship between the total number of common stock shares after, versus before, reorganization.

Customers

What are the implications of the reorganization for telephone customers? The largest impact appears to be on long distance service. The consent decree requires that local telephone companies provide equal access to all qualified long distance carriers who wish to compete. This change will reinforce the recent trend toward greater competition and lower rates for long distance service. AT&T will no longer have a favored position with the local operating companies, and other carriers eventually will be accessible with the same number of dialing digits as AT&T Long Lines.

The primary implication for the long distance customer is that he or she should become informed about the alternatives to AT&T Long Lines as the number of alternatives increases. Businesses that rely on extensive long distance communication for sales contacts, data communications, and the placing or receipt of orders should find that the price of high quality service falls due to the reorganization. Taking advantage of these changes will require that managers pay more attention to the price and availability of alternative carriers than was usual in the prereorganization era.

Another impact may be rate changes. Headlines since the January 1982 settlement have implied that local service rates likely will increase sharply as a result of the reorganization. Despite all the media attention, however, this outcome is by no means assured. The Federal Communications Commission (FCC) has announced the imposition of a flat rate charge for access to the long distance network, scaled from $2 per month in 1984 up to an estimated $6-8 per month in 1989 for residential customers. This charge is intended to cover long distance costs that are not variable with the volume of long distance calls. This charge will be added to existing local service rates. AT&T Long Lines, however, has announced a long distance rate decrease on the order of 15 percent, responding to the increasing degree of competition in long distance markets. Thus lower long distance rates may partially or totally offset the added access charges.

The main uncertainty regarding local telephone rates is the response of the state regulatory commissions to the reorganization. In the past, a complicated separations process was used to separate the assets devoted to long distance service from those devoted to local service. Revenues also were divided between local and long distance service. The separations process was said to have subsidized local service customers at the expense of long distance customers, with the objective of promoting universal service by maintaining low local rates. After reorganization, the level of local service rates will depend on the valuation of the assets remaining in the local service companies, on the size of the depreciation charges allowed, and on the level of the interconnection fees charged by the local telephone companies to the various long distance companies seeking interconnection. Because of the complexity of these issues, it is not a foregone conclusion that local rates will increase drastically as a result of the reorganization. (For opposing views on this issue, see *Regulation*, July/August 1983.) Because the level of local telephone rates is closely tied to the concept of universal service, and because the political process tends to be sensitive to equity issues, the regulatory response to reorganization should dampen the magnitude of local service rate increases.

The New AT&T

The new AT&T will be reorganized into seven regional holding companies that will provide local telephone service. (The new regional holding company that has jurisdiction over local services in South Carolina is BELLSOUTH. It will serve 13 million customers in the Southeast and have total assets of about $21 billion. Southern Bell will retain its identity, so there should be few immediate effects of the reorganization on the quality of local telephone service.)

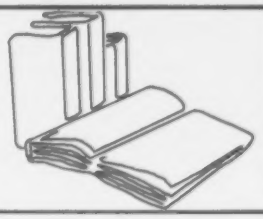
The new AT&T will consist of the long distance business (still regulated by the FCC) and a mostly unregulated part, consisting of Bell Labs, Western Electric, and AT&T Information Systems, the new computer and communications arm of the company.

The unleashing of AT&T to compete in new, unregulated markets may pose strategic threats to firms already established in those markets. AT&T is expected to move into areas such as data communication, computers, and information services, perhaps including cable TV. This infusion of new competition will stimulate the pace of technological change in those markets, and some existing firms may be vulnerable to the strength of AT&T. It is important that the managers of firms likely to face increased competition from AT&T employ shrewd strategic planning to focus resources on those market segments that are least vulnerable.

The winds of change are blowing in the telecommunications sector. Fortunately, the direction of the winds is toward increasing competition and decreasing regulation. Although short-run effects may be unfavorable to some, the long-run impact on telecommunications and our information economy should be beneficial. □

BUSINESS ECONOMIC REVIEW

Books



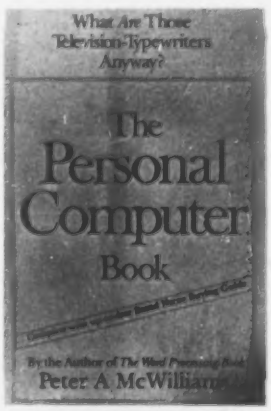
How Not to Buy a Computer Book

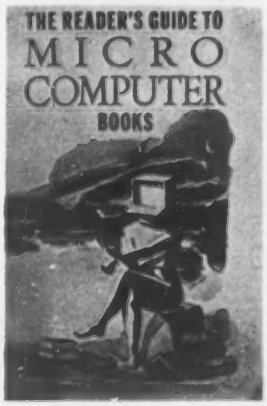
"What most buyers of computer books are really looking for is a volume or two to help them decide if they really do need a computer — at home or in their business."

C. Brian Honess

I had occasion to wander into a small newsstand in the Toronto Airport recently. I counted 43 different book titles dealing with small computers for both the businessman and the home computer market. On the plane, the airline magazine — and each of the other magazines I read — had at least one major article dealing with small business computers, and I'd estimate that at least one-third of the ads also were computer-related.

This was not an isolated finding. Last June, the annual convention and trade exhibit of the American Booksellers Association in Dallas drew about 16,000 people to its 4-day meeting. Of the 20 formal panel discussions, 6 were computer-related, and computers and computer books were the main topic of conversation. Book titles like *37 TIMEX 1000 Sinclair ZX-81 Programs for the Home, School, and Office; TRSDOS 2.3 Decoded;* and *166 Things I Wish I Had Known Before I Bought My First Computer* were discussed. A spokesman for B. Dalton, the largest United States bookstore chain, predicted that by the end of 1983, computer books will outsell fiction in their stores, and will account for 10 percent of their trade sales. Clearly, the "computer revolution" of the '80's is being accompanied by a computer book revolution.


What Are Those Television-Typewriters Anyway?
The Personal Computer Book
By the Author of The Word Processing Book
Peter A. McWilliams



Instruction Manuals

While a large number of the available books are basically nothing but groups of additional programs that can be keyed into, and run on, specific makes and models, an equally large number have come about because the computer vendors have completely missed the mark on furnishing adequate instruction manuals and listing sample programs for their products. For example, there are currently a dozen books on VisiCalc, a popular accounting spreadsheet program package. Clearly, a few of these books are aimed at the user who is trying to decide if he needs VisiCalc, but the bulk of them are for the individual or firm that already has the package. Word processing, database, simulation, accounting packages, and the like all seem to have the same pattern: each new hardware or software product is accompanied by numerous books seeking to explain why you need that product . . . how it works . . . how to use it . . . and how to utilize the vendor's inadequate instructions. In general, there is a tremendous need for these guides.

Decision Aids

What most buyers of computer books are really looking for, though, is a volume or two that will help them decide if they really do need a computer — at home or in their business. Unfortunately, this is something that is rarely found in the type of books available on newsstands, in airline terminals, and in mall bookstores. Have you ever seen a TV or newspaper ad that really tells you what the typical family can do with a home computer? I don't ever recall one. The same is generally true for small business computers. Instead, the books are full of bytes, and bauds, and bits, and pin diagrams, and logic circuits, none of which will help the businessman decide what a computer can do for his business.

It is also disturbing to see the number of books that try to teach some computer programming, when most business users will, in all probability, use canned programs, which they lease or buy. The typical small business user has neither the time nor the ability to code an integrated accounting package program. Yet, the available books seem to go on and on, covering things like encryption algorithms, assembly language, hexidecimal number conversion, communications interface protocols, ad nauseum.

What is needed, instead, is something that helps you organize the "things to count" about your business. (How many employees do I have on the payroll? How many items do we stock in inventory, and what is the length of the description of each, in characters? On the average, how many times do we receive inquiries about our stock status per week?)

Analysis and Selection

Most of the books pay little or no attention to the analysis of the problem(s), the selection of the software, or programming packages that will help solve those problems. Instead, they seem to present material mainly on the hardware, or computer systems, and assume that once you have the machine, the problems will be easily solved. This is exactly backwards. First should come an analysis of the problems, then the search for the programs or packages to solve those problems, and, finally, the acquisition of the hardware on which to run the programs. A strong argument can be made for the advice, "Find the programs that will solve your problems, then get almost any machine that will run the programs."

Recommended Books

There are a few good books out there, and although they don't actually lead you through the problem-analysis phase, they are still well worth reading. Perhaps the best, and certainly the best selling, is *The Personal Computer Book* by Peter A. McWilliams, and its companion piece, *The Word Processing Book* (Prelude Press, 1982, $9.95 each). These books are unique because they offer free updates on specific computer systems, and even include a toll-free phone number you can call to check out the system you've chosen with the current recommendations of the author.

The Beginner's Guide to Computers by Robin Bradbeer, Peter De Bono, and Peter Laurie (Addison-Wesley, 1982, $10.35) is a book that was published to accompany the series on computer literacy recently presented by the British Broadcasting Corporation.

Business System Buyer's Guide by Adam Osborne (Osborne, 1982, $9.95) is suggested because Osborne's company has produced an extremely good computer system, although it recently filed for Chapter 11 reorganization. He has been a pioneer in both hardware design and technical writing since the early days of data processing.

Computers for Everybody by Jerry Willis and Meri Miller (Dilithium, 1982, $5.95) is a book for the absolute novice. It does devote some space to microcomputer selection and applications, but at an extremely low level.

If you'd like to try a programmed instruction book, I suggest *Crash Course in Microcomputers* by Louis E. Frenzel, Jr. (SAMS, 1980, $21.95). This volume features the typical paragraph or two, and then a question, designed to test your comprehension.

Guide to Systems Applications: An Introduction to Microcomputers by John P. Grillo and J. D. Robertson (William C. Brown, 1981, $17.95) has a lot of material on programming in BASIC, and plenty of the typical pictures of microcomputers and the like, but it eventually gets down to cases with a good bit of information on the requirements of a functional computer system, an analysis of possible options, and even material on whether to develop software inhouse or to buy a vendor's software package. I like a book that pays attention to planning and design, before the machine is purchased.

Small Computers for the Small Businessman by Nicholas and Sharon Rosa (Dilithium, 1980, $16.95) is worth reading if for no other reason than its coverage of the hidden costs of not computerizing. The Rosas say, "you will never gain back the money you will have lost by delaying acquisition."

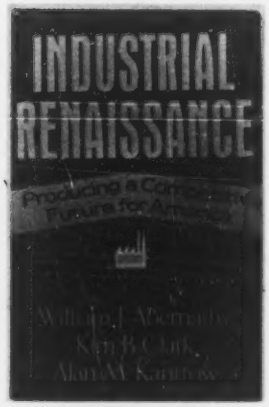
So You Are Thinking About a Small Business Computer by R. G. Canning and N. C. Leeper, '82/'83 Edition (Spectrum, 1982, $10.95) is another of my favorite texts. It's well-written, and has material for a wide range of prior knowledge on the part of the reader.

Using Microcomputers in Business: A Guide for the Perplexed by Stanley S. Veit (Hayden, 1981, $12.95) has a title that will capture the attention of many small businessmen. The author is "right on target" in his treatment, because he assumes the average businessman is more concerned with the impact of the computer on his daily operation than with how the thing works. Veit even includes material on the various strategies for installation of a system (an all-at-once cutover, a gradual implementation, running concurrent systems) as well as a step-by-step recovery plan for when the system "crashes."

The small businessman considering computerizing his accounting and bookkeeping operations should look at *Your First Computer: A Guide to Business and Personal Computing* by Rodnay Zaks (Sybex, 1980, $8.95).

You might consider one more book, especially if you don't exactly fit the neophyte-computer-knowledgeable-businessman mold I've discussed. It's called *The Reader's Guide to Micro Computer Books* by Michael Nicita and Ronald Petrusha (Golden-Lee, 1983, $9.95). This work rates more than 400 microcomputer books, and evaluates each for content and quality of presentation on a scale of 0 to 100. Nicita and Petrusha cover books from the novice to the advanced levels, and rated on their own scale, I'd give them close to 100. □

C. Brian Honess is Director of the James C. Self Management Science Center and Associate Professor of Management Science in the College of Business Administration at The University of South Carolina. He is the author or coauthor of 11 computer books and numerous articles.



Industrial Renaissance

By William J. Abernathy, Kim B. Clark, and Alan M. Kantrow
Basic Books, 1983, $19

The reviewer, **Philip Lader,** a Harvard- and Oxford-trained lawyer, Rhodes Scholar, and former Sea Pines Company President, is President and Professor of Business and Public Policy at Winthrop College in Rock Hill, South Carolina.

Like Pogo's admonition that "we are confronted with insurmountable opportunities," this 194-page diagnosis of American manufacturing is both alarming and surprisingly optimistic. Venturing from academic cloisters to explore United States auto factories, the authors, a trio of Harvard Business School professors, conclude that this nation's bedrock industries may yet overtake "an unstoppable Japan, Inc." This detailed examination of Detroit depicts an "industrial renaissance" that has already revised management agendas and stimulated informed public discussion.

The authors' thesis, derived from the automobile industry, is that American business has been relatively unconscious of the evolution of production systems and has been reluctant to accept its competitive significance. Their organic analogy is apt:

> like a biological species that has become perfectly adapted to a particular environmental niche, mature industries carry with them the implicit threat of extinction or, at least, catastrophe if environmental conditions should suddenly or radically shift.

As an industry prospers, in other words, management invests fewer resources in product innovation; and as the maturing company's market share seemingly becomes more secure, it actually is more vulnerable to incursion by foreign competition. This process, the authors contend, can be arrested, and even reversed, by a corporate commitment to "de-maturity."

To this end, a company must search for its roots. It must become preoccupied again with its product's acceptance in the marketplace, refine anew its production technologies, and manage manufacturing as an integrated, people-oriented process.

Ironically, it is this very United States legacy that constitutes Japan's secret for industrial success. Toyota, Nissan, and their kin simply elaborated Henry Ford's themes — continuous production flows, simple design, precision machinery, worker motivation (absent what became Ford's infamous authoritarianism) — better than his successors. The Japanese simply remembered that the best competitive weapon is a superior manufacturing process.

However sophomoric that notion, it has caused these authors to pack courses and seminars. Exhibiting an uncommon degree of common sense, they are among the few academics scientifically studying manufacturing. Their book may be considered a case study of the celebrated thesis expounded by Abernathy in a 1980 *Harvard Business Review* article, "Managing Our Way to Economic Decline," which also targeted managers, business schools, and industry generally.

To managers, the book's implicit charge is to

> integrate people into the manufacturing process so their skills and ability become and remain a point of competitive leverage.

This management "microsoftware" must be directed to the factory floor and, in the authors' view, must supplant the excessive concern for short-term profits. Only this form of leverage can take advantage of technological developments rapidly enough to regain America's competitive edge.

Particular blame for poor long-run strategic decisions is lodged by the authors with America's business schools. At these citadels of management, finance and marketing long have dominated the curriculum, while production and operations typically have been left to on-the-job training for those students choosing manufacturing careers. The consequence has been an overdependence on analysis, the worship of "discounted cash flow," and management "by numbers." This bias can result in inadequate reinvestment and platoons of MBAs avoiding the hard, non-quantifiable decisions that can keep companies competitive.

Industrial Renaissance focuses on the auto industry because the authors consider it to be "the historical culmination of the American manufacturing system itself." One wonders, however, if the "industrial renaissance" formula is applicable to other industries. Would Detroit's "de-maturity" process sufficiently address textiles' foreign cheap labor challenge? Or, has that industry already begun a cycle of maturity, catastrophe, and extinction?

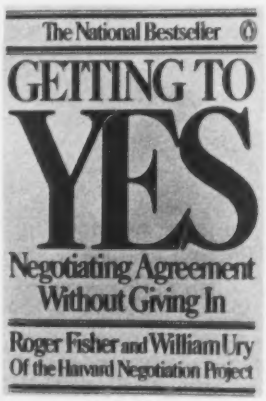
Can even a "de-matured" American company compete effectively with foreign industries that benefit from low-cost public financing, collaborative research and development, and antitrust laws exemption? A national industrial policy, whether sculpted or amorphous, perhaps has as much to do with the fate of manufacturing as do internal failings. Abernathy, Clark, and Kantrow, in aspiring to a "born-again" leadership for American business, neglect to ponder government's role as regulator, facilitator, and potential partner.

They are conspicuously silent, for example, on the attitude of Japan's Ministry of International Trade and Industry toward auto manufacturers. Although MITI is the textbook example for targeting favored industries, its role in developing America's

principal automotive competitors reportedly was slight, at best. MITI supposedly projected minimal auto export potential and discouraged those entrepreneurs who ultimately derailed Detroit's colossus.

Admittedly, the competitive strategy of stressing quality manufacturing was critical, but did a national industrial policy aid or frustrate Japan's auto industry? From this case study, what conclusions might United States manufacturers draw regarding the merits of a national industrial policy?

All in all, though, however slick the term "de-maturity" may sound, it is a significant academic contribution to industry. And the introspection it requires is likely to assist all management ranks and business facilities seeking their own "industrial renaissance."□



Getting to YES: Negotiating Agreement Without Giving In

By Roger Fisher and William Ury
Penguin Books, 1983, $4.95

The reviewer, **James A. Morris,** is an Economic Consultant and Chairman of the South Carolina Board of Economic Advisors. A Harvard-trained economist, he formerly was Dean of The University of South Carolina's College of Business Administration.

The resolution of human conflict through negotiation, mediation, or arbitration is a subject that is receiving a great deal of attention in this era of explosion of litigation. There is increasing concern about the adversary method of solving disputes, the expanding supply of resources devoted to litigation, and the inadequacies of this approach in healing human conflicts. The Chief Justice of the Supreme Court has been a leading critic of current trends in litigation and has recommended alternatives, such as binding arbitration. The development of professional associations of mediators and arbitrators, of conflict resolution centers for research and training within universities and human service organizations, and the increased flow of publication on this subject bear testimony to the increased public interest in alternative methods and tools for conflict resolution.

Getting to Yes: Negotiating Agreement Without Giving In is concerned with the process of negotiation as "a basic means of getting what you want from others." More specifically, it deals with principled negotiations as developed at the Harvard Negotiations Project, rather than soft or hard strategies for achieving a trade-off between getting what you want and getting along with people. Principled negotiation is advanced for such diverse conflict situations as arms control talks, divorce settlements, anti-trust problem solving, and labor-management bargaining to achieve a contractual settlement. Practically speaking, the basic example is the strategy involved by the parties in labor-management negotiations.

This is a clearly-written exposition on practical methods of achieving a compromise through negotiations that are principled and meet the needs of the participants in the process. In addition to the usual disclaimers about adequate preparations for negotiations and sending people to the negotiating table who have the requisite authority to make decisions rather than simply "office boys," the authors highlight a variety of techniques, such as separating the people from the problem, developing options for mutual gains, focusing on interests rather than positions, and dealing with "dirty tricks." The concepts developed are sound and practical and provide a most useful framework of ideas to guide the initiate in conflict resolutions, as well as many useful tips for the trained professional.□

Books Briefly

Compiled by Dwight Gardner, Business Librarian, College of Business Administration, The University of South Carolina.

Dangerous Currents: The State of Economics

By Lester Thurow
Random House, 1983, $16.95

The author, an economist at M.I.T., takes a close look at contemporary economic thought and concludes that economic theory doesn't correspond with economic reality — as in the case of the theory of supply and demand, which is useless in most real world situations. The poor performance of economists in solving the nation's economic problems, Thurow feels, is due to the faulty economic theory on which they base their plans and predictions. He intends to reveal a new theory, which will restore economists' predictive power in a forthcoming volume.

Creating Wealth

By Robert Allen
Simon and Schuster, 1983, $14.95

The best selling author of *Nothing Down* explains his methods of real estate investing. Discussing in detail his strategies and tactics for possible real estate deals, he also covers what kinds of properties to look for and how to negotiate the best terms.

Three Plus One Equals Billions

By Allan Sloan
Arbor House, 1983, $15.95

This volume examines the accelerating trend in business mergers over the past 10 years — a trend the author maintains is detrimental to the nation's economy. It also covers in detail the complex case of Bendix's 1982 attempt to take over Martin Marietta.

The Complete Guide to Buying or Selling a Business

By Arnold Goldstein
John Wiley & Sons, Inc., 1983, $24.95

This book will benefit people interested in purchasing an existing business or starting one of their own. It covers the entire process — including locating a firm for sale, investigating it, negotiating the selling price, valuing the business, and finding sources of capital. Numerous case histories are included.

Telemarketing Campaigns That Work!

By Murray Roman
McGraw-Hill, 1983, $29.95

A practical guide to one particular approach to direct marketing. Telephone marketing campaigns have proven successful for businesses wishing to sell their products and services, as well as for nonprofit organizations wishing to solicit funds. A variety of case examples about raising campaign contributions and selling magazine subscriptions and bank services is used extensively throughout the text.

High-Tech Investing: How to Profit From the Explosive New Growth Companies of the '80's

By Rodger Bridwell
Times Books, 1983, $17.65

This book introduces the layman to the investment possibilities in those industries employing advanced technology. It covers the leading companies in such fields as computer graphics, genetic engineering, space age energy, robots, and software.□

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Member, Association for University Business and Economic Research.

Business and Education: A New Partnership

The experts say the American public education system is in trouble. Suggested remedies abound, but one of the most interesting is for schools to form alliances with business and industry. The ultimate winners could be the children.

Terry K. Peterson

I am concerned about the quality of our future work force. As our company grows, we are planning to bring in managerial talent from outside the state. However, we have concerns about attracting the quality people we need because of substandard educational levels in the state. Industrial development is unlikely to thrive in South Carolina where these substandard educational levels exist. I would appreciate hearing your thoughts and plans on this subject, as well as any ways you feel industry can help.

Letter to South Carolina Gov. Richard Riley from P. J. Weaver, Assistant Plant Manager, Stouffer Foods Corporation

In 1983, about the same time the above letter was written, a raft of reports informed the American people that their public education system was in trouble. A recurring suggestion to remedy this decline in the quality of our public schools was that they form partnerships with business and industry.

Some states had already formed these partnerships, many years earlier. Others are just now beginning.

Terry K. Peterson has been Education Advisor to South Carolina Governor Richard Riley since 1979. He also has served as Staff Liaison to the Business/Industry, Education/Legislative Partnership Committee in South Carolina.

South Carolina's public schools, which ranked second to last in the nation in 1982-'83 in per pupil expenditure and at the bottom in students' Scholastic Aptitude Test (SAT) scores, are in the early stages of these partnerships with business and industry.

Business people and educators are increasingly aware of the interdependence between the quality of public education and the ability of business to remain competitive. The economic readjustments of the past decade have driven home the lesson that the best employees are those who can adapt to the changing needs and demands of the workplace.

Business is embracing new technology, experimenting with new forms of worker participation, and shifting to new products in order to remain competitive. Employees who can use their minds, not just their hands, are at a premium. Workers with low skill levels, or those who do not know how to apply their knowledge to problem solving situations, offer little to employers who are scrambling to cope with foreign competition and shifting market demands.

Preparing Students for Jobs

Business leaders believe that public schools now must pursue three important objectives in order to prepare students more effectively for employment.

(1) They must enable students to utilize competently the basic skills of reading, writing, and mathematics.
(2) They must emphasize science and higher order thinking skills.
(3) They must challenge young people to be more creative and motivate them to make better use of opportunities for intellectual development.

Like business people, educators have become aware they no longer can make assumptions about the certainty of their "market." The declining birth rate, the growth of private elementary and secondary education, the President's advocacy of tuition tax credits, and taxpayers' skepticism about the use of education dollars have combined to make educators sensitive to the vulnerability of public education as an institution.

Educators realize more and more that many people have no direct relationship with the public schools. Rather, they get their information about public education from the news media and from anecdotal comments of friends. Too often it is negative impressions or experiences that are thought to be worth communicating. These developments have led educators to understand that they must seek out new allies in their efforts to support and strengthen public schools. Whereas

"The purpose of a business/education partnership is not to change the essential character of the respective institutions, but, rather, to improve the effectiveness of the schools."

many educators once viewed business people as uninterested in, or even hostile to, public education, they now recognize the need to inform and involve the business community.

Public education and business are also being drawn together by the fact that they now have more in common than in the past. Schools are learning from the private sector. The importance of the school principal as a manager and leader has gained currency in education circles, as has the practice of planning and setting goals and objectives. Greater emphasis also is being given to monitoring and evaluating the performance of school personnel, though legal precedents require that public employees be given "due process" prior to termination. The "bottom line" in public education — student achievement — is reasserting itself as a priority mission of the schools.

Opportunities for Partnership

The common interests of business and the public schools provide the opportunity for these entities to join together in a partnership for quality education. "Partnership" is the best word to describe the relationship because, through communication and cooperation, the two parties can build a more effective public school system that will benefit them both.

There are almost limitless opportunities for business-education partnerships. These range from cooperation in developing statewide education policy (as was done in South Carolina in 1983 through the Business/Industry/Education/Legislative Partnership Committee in South Carolina) to working together at the classroom level.

The first step in building the business-education partnership is to establish communication. Business people who believe there is a need to improve public education, or who feel they have something beneficial to offer the schools, should not hesitate to take the initiative. Educators generally will welcome such overtures, particularly if business people make it clear they want to work as partners with the schools.

Regardless of whether business people or educators make the first move, it may take some time to establish an understanding of the respective operational styles of business and education. The two entities have common interests but different missions.

The purpose of a business-education partnership is not to change the essential character of the respective institutions, but, rather, to improve the effectiveness of the schools. The process of working toward this goal may, in fact, produce changes in institutional perspectives or operations.

Areas of Concentration

Before initiating communication and cooperation, business people will need to consider where they want to focus their time and energy. They have two choices: (1) the school district as a whole and (2) individual schools. At the school district level it is possible to have an impact in a variety of ways.

- Assisting the school district in an assessment of management and personnel practices within the district's central office. This may include making recommendations to change current practices or policies.
- Working with the superintendent and school board to help them make the best possible case for the school district's financial needs. This assistance may include advice on strategy, public relations, interpretation of budget data, and organizing support in the broader business community.
- Helping the school district organize and develop a nonprofit community foundation. The purpose of the foundation would be to build enough principal so the revenue could be used to initiate special programs in the schools, or to make small grants to teachers to enable them to develop new curricula or materials.
- Organizing a consortium of local businesses for the purposes of

negotiating an agreement with the school district to give hiring priority and additional training to school district graduates if the students demonstrate a certain level of achievement.

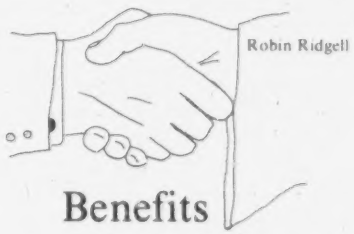
Another means of working with an entire school district is to work through the local Chamber of Commerce. In Charleston, South Carolina, the chamber has helped create a Business Education Partnership Program that makes management assistance directly available to principals so they can devote more time specifically to the educational process. This assistance takes the form of financial management, personnel guidance, record keeping, motivation and communication, and time management. Principals also view films and attend seminars at company sites to learn how to transfer business management skills to schools.

In Berkeley County, South Carolina, the Chamber of Commerce helped create the BEST (Business and Education Striving Together) Council. This council makes recommendations, carries out projects, and develops programs to help schools prepare students for work. Currently, 17 industries are involved in the program.

Adopt-A-School

Businesses often find it even more satisfying to develop an ongoing relationship with individual schools. The Adopt-A-School Program, now being implemented in a growing number of schools in South Carolina, provides this opportunity. Through this program, which local school districts initiate, an individual business "adopts" one school. That business then becomes closely involved in working with the school in any number of ways. The business may, for example,

- give released time periodically for employees to teach classes on special subjects related to their expertise or the nature of the business;
- invite teachers to bring their classes to the company site to learn about the purpose and operation of the business;
- offer students summer and or part-time work;
- furnish students with "real world" information and orientation on how to fill out job applications, how to dress and behave during an interview, salary levels, benefits, payroll deductions, and employers' expectations;
- contribute scholarship aid to students;
- assist teachers in keeping up to date with "state of the art" developments in a particular business related to their subject area;
- provide teachers with specific examples of how their subject matter relates directly to the



Benefits

A business/education partnership takes time, money, and energy, but the benefits exceed the costs. Here are some of the benefits.

- *The creation of a larger pool of skilled and literate workers.* Any organization is only as strong as the community surrounding it, because the community supplies the workers. Educational partnerships offer a high return in productivity and economic growth. Says one company executive, "As illiteracy is reduced, we sell more pens."
- *A reduction in company-sponsored remedial education.* It costs less to train future employees while they're in school than it does to pay for intensive on-the-job training or constant retraining after they're hired. Educational partnerships provide workers who are able to continue to learn and to adapt in a rapidly changing work climate.
- *Direct input in the educational process.* Businesses can alert schools to the skills job applicants lack, and help develop the necessary instruction to correct these deficiencies. Besides making requirements and expectations, businesses can actually help develop specific vocational and technical programs to meet those demands.
- *An increased awareness of career opportunities.* Working directly with students helps to develop career awareness and the desire to consider careers in specific fields. It also motivates them to achieve when they can see for themselves the practical application of basic skills to the "real world" of business.
- *Increased understanding by students and educators of the free enterprise system.*
- *Increased employee support for schools through one-to-one relationships.*
- *Additional opportunities for teachers to polish their interpersonal and training skills.*
- *Increased public relations/communications with the schools.* By demonstrating that respected "outsiders" are willing to help educate students, businesses can raise the morale of administrators and teachers.
- *Increased local visibility for businesses.* Companies gain an invaluable opportunity to participate in educational/community decision-making by becoming involved in advisory councils, by sharing facilities and resources, and by providing materials, grants, and scholarships. □

actual operations of a specific business; teachers then can include these examples in their lesson plans;

- make special awards to students for outstanding achievement or academic improvement or increased attendance; and/or
- donate materials, goods, or services to be used by teachers in the instructional process.

In Greenville, South Carolina, the Adopt-A-School Program is planned in accordance with defined objectives and needs of both the schools and the businesses that participate. Under this program, businesses provide schools with tutors and advisors. For example, members of The Greenville Bar Association have served as advisors to debate teams, mini-courses have been offered in classes and on company sites, and businesses have displayed student art work on their premises.

Both Parties Benefit

Successful business-education partnerships have demonstrated that the experience can work to the advantage of both parties when it is accompanied by clear communication and careful planning. Schools cannot expect or ask more than companies are able or willing to give. Businesses should consider what they have to offer that schools can use. It is important for both parties to focus on specific areas of need that can be alleviated through the business-education partnership.

South Carolina does not enjoy the same level of financial resources as many other states in the nation. It is essential, therefore, for this state to make the best use of all the resources at its disposal.

Increases in test scores in recent years reveal that South Carolina is making progress in meeting the educational needs of more of its children than at any other time in the state's history; however, South Carolina's low ranking indicates much more must be done. In order to catch up and keep up with other states and nations, the contributions of business and industry to the development of the educational system will be critical.

The concept of a business-education partnership provides a new opportunity for business and industry to make an even more direct contribution to the improvement of our public schools. There is too much at stake — for the future of our children and the future of our state — for business or education to exist in isolation from each other.

There is a new climate of cooperation in South Carolina that makes it possible for business and education to work together as never before to make our schools the best they can be. □

National Examples

Business/education partnerships have been formed all over the country. Here are a few examples.

- Indiana's **Partners in Education** (PIE) is a joint effort of the Indianapolis schools, the Corporate Community Council, the Lilly Endowment, and the Indianapolis Foundation. More than 100 business and industrial organizations contribute 500 volunteers who help support basic skills teaching, provide participatory learning opportunities, and integrate business skills into the curriculum.
- The **San Francisco Educational Fund** (SFEF) has revenues of more than a half million dollars contributed by corporations, foundations, and private individuals to provide grants to teachers to improve programs in the arts and music, basic skills, and science and the environment; to enhance curriculum enrichment; and to provide counseling, and programs for the handicapped.
- New Orleans' **Business Task Force on Education,** comprised of the chief executive officers of the city's largest companies, brings the resources and manpower of the business community into the schools. Shell Oil Co. helped develop a program that prepares students to enter the business world. Mock sessions are held that teach students such essentials as how to fill out job applications and how to dress and behave during a job interview. Minority representatives of member companies also show black and other minority students what skills are needed to find, land, and hold jobs.
- Members of the **Kiwanis Club** and other adults in Fort Worth, Texas, are trained to serve as "special friends" for high risk elementary age children. These are youngsters who are too shy to participate in class, aggressive and unable to control impulses and emotions, or coping with problems such as parental death, illness, divorce, or separation. A special friend is a caring adult who gives one-on-one attention to a child once or twice a week on the playground or in an empty classroom or library. During part of each session, the adult helps the child define problems, choose alternatives, and think through consequences.
- **Chase Manhattan Bank** in New York has contributed $430,000 to train high school principals to become better leaders, particularly in curriculum areas.
- **The New York Yankees; Time, Inc.**; and four other New York City businesses have funded a "Dial-A-Teacher" program in which students from 27 elementary schools can get help with homework by telephone each afternoon.
- **The Clorox Company** in Oakland, California, helped 70 Castlemont High School tenth graders improve their reading by paying for two aides to assist two reading specialists in teaching special classes. The company also paid for instructional materials, field trips, library books, and incentive awards (such as $10 gift certificates from record shops). Castlemont officials report that during this program's first year, the *average* student improved 22 months in reading ability. □

YOUR Business and Computers

Everybody seems to be buying computers these days, but it's not as simple as you might think. Here is a step-by-step guide to computerizing your firm.

Garret Van Seters

The computer is not a magic black box that will correct all the problems in an organization, nor is it a mystical "thing" to be used only by the select few. Rather, the computer is a tool that, when properly installed, can be used by most office personnel. The extent to which it is used depends largely on your selection of systems, the amount of training you acquire, and your willingness to use the system.

Most general business functions, such as accounting, order entry, inventory management, word processing, invoicing, and client management, can be handled successfully by a good computer system. Let's start with a look at accounting systems.

A good accounting system includes the General Ledger, Accounts Payable, Accounts Receivable, and Payroll, and their related reports. The General Ledger is the hub of the accounting system, and carries the information needed to do your tax returns, balance sheet, and income statement. A good General Ledger will have all the financial transactions recorded and referenced to the original documents or subsidiary journals. It also will be updated automatically from the entries in Payroll, Accounts Payable, and Accounts Receivable. This form of automatic update is called a fully integrated system. In a fully integrated system, you have only to enter a transaction one time, and it is posted in all the necessary places.

The advantage of a *General Ledger* package is that you can produce your needed management reports on a more timely basis, with a substantial reduction in the labor required. One of the major problems of manual systems is producing the management information on the financial status of the business *before* it is historical information. While historical information is good for avoiding problems in the future, it is not good for correcting problems before they cost you money or your business. Computerized systems usually improve accuracy, too, because there are fewer postings and manual extensions.

The advantage of an *Accounts Payable* package is that you can usually manage your cash flow better. A good Accounts Payable program will enable you to take advantage of payment discounts more easily, and to plan your cash needs. A system should allow you to select payments that are approaching the deadline so you can get the payment discount. You should also be able to get a projected cash needs report based on the invoices you have received. A good accounts payable system should prevent duplicate payment of the same invoice and give you a history of payments, by vendor.

An *Accounts Receivable* package enables you to improve your incoming cash flow to avoid cash deficiencies. One of the critical needs of any organization is to get paid quickly for services or goods. When a receivable isn't collected punctually, the likelihood of a bad debt is greatly increased. A good system that includes invoicing will allow you to produce more accurate invoices faster, and track your outstanding receivables more easily. The system should produce aging reports for management, statements and dunning notices, and a history of your customers' charges and credits.

If you have any number of employees in your organization, it takes a great deal of labor to produce payroll checks and the necessary government reports. A good *Payroll* system will allow you to pay on different bases, such as hourly and salaried; calculate the gross pay and deductions; produce the checks; and allow a number of different miscellaneous deductions.

The focus of this article is organizations that would use small-to-medium-sized business computer systems. There are several terms you need to understand.

- ***Software:** a group of written instructions that tell the computer what to do and how to do it.*
- ***Hardware:** all the physical parts commonly called the computer.*
- ***Multiuser:** capable of being used by more than one person at one time. Multiuser refers to both software and hardware. If only one is multiuser and not both, you don't have a multiuser system.*

Garret Van Seters owns a computer company (Merlin Electronics), a software company (Roundtable), and an insurance agency (Excalibur) — all in Columbia, South Carolina. He has been involved in the design and implementation of computer systems since the mid-1960's.

The system should also print the checks, information for all the government reports, and your W-2's, as well. The system should allow for charging the payroll costs out to the proper General Ledger accounts and to jobs if you use job accounting.

Inventory Management has many different facets, but its primary purpose is to allow you to minimize your investment and maximize your sales. An *Inventory* system should include order entry, purchasing, history, on-hand and on-order information, pricing, and costs. You should be able to get management reports showing the movement of each of the items you normally stock. You should be able to get information sufficient for you to make accurate purchasing decisions. A properly designed order entry inventory system should substantially reduce the time required to pick the merchandise and invoice the customer. Most manual inventory systems lack the necessary information to tell management adequately what items are selling and how fast, when, and to whom. Management normally compensates by overstocking to prevent lost sales. But, when they overstock, they substantially increase their cost of doing business.

There are several other software packages generally used by business that are not accounting packages. *Word Processing* has probably become the most talked about of the software applications today. This package eliminates much repetitious typing, usually improves the accuracy of the documents produced, and cuts production time for straight typing about 30 percent. For lengthy reports that are repetitious and have only minor changes, word processing can cut production time as much as 90 percent. This software package is now available on most major micro computers.

A software application called a *Spreadsheet* has proven to be very popular. A Spreadsheet program allows the user to produce, in much less time, reports that normally are done by posting and calculating numerous entries. Good uses of a Spreadsheet are the preparation of a budget, "what if" comparisons for evaluations, loan amortization, and bid and estimate preparations. This program is probably the most used type of software by general management, and the most directly beneficial.

Do You Need a Computer?

First of all, establish your objectives. A formal set of objectives forces you to think about the total environment and to concentrate on what applies to *your* organization. Some typical objectives of computerization are

- to increase productivity;
- to reduce the cost of processing any item;
- to cut down on errors by eliminating or reducing the number of times a single task is processed;
- to increase the value and timeliness of information;
- to provide *needed* information, that previously was not available;
- to make more effective use of human resources by replacing detailed tasks with creative and management functions.

These objectives are general in nature, but you should be detailed in your organization.

Analyze each specific operation in your organization, sketching out the flow of the work, what information input and output are involved in each operation, and who does it. Evaluate the necessity of each task and why it is done. Collect a copy of all forms and reports done presently in your operation. Evaluate the weaknesses in your present operation and detail not only what they are, but why they exist.

Develop a general description of what benefits you hope to gain by introducing a computer system. Be realistic in your judgments and don't expect utopia. Set both what you expect and a minimum acceptable improvement. The range of what you set is important later when you start getting prices.

After you have finished your analysis, make a realistic assessment of your growth potential over the next three to five years. The volume of most functions determines the size of the system you may buy, and a good system should be adequate for at least three years.

You should also analyze for alternatives other than computers. The choice to computerize should not be a whim, or motivated by reasons not thoroughly thought out.

If you do not make a good analysis of your business and its objectives

"There is a right time to computerize in every organization. When your analysis shows a computer can save you money or make you money, it's time to computerize."

before you buy a system, your chances of a successful installation will be almost nonexistent. Be prepared to inform a system supplier of the detailed function of your business in order for him to make a professional decision. You also should evaluate any proposals for how well they *specifically* fit *your* business.

Proposal Time

You are armed with information on what your organization is looking for in a computer. Now you must select a vendor. Talk to friends in similar businesses who have computerized. Find out what they think of their systems and who supplied them. Take a look at how these systems operate in your friends' businesses, and find out if the vendors did what they said they would.

Now start contacting prospective vendors. The vendor should be willing to send a representative to your place of business. The vendor is not in a position to get a good feel for *your* business sitting in *his* office.

Be prepared to show various vendors around your business, and to go over your objectives, forms, and work flow. This takes time. Any vendor who doesn't want to gain a thorough understanding of your business should be eliminated from your consideration.

Your first discussion with the vendor should be the shortest; its only purpose is for you to evaluate him for consideration. Go through the entire process with only one to three vendors. Any more will create a situation of confusion. If, after you receive *written* proposals from the vendors you selected, you think you could do better, you can choose additional vendors.

You are now at the stage of considering the proposals. They should be thorough enough to tell you exactly what you are buying and how much it will cost. They should provide that the software will be installed on the hardware by the vendor, and that it will be operational. Training of personnel should also be included in the proposal, and the amount of training should be specified. Very few organizations get a system fully operational without expert help. Remember, you probably didn't read a book and then automatically start driving a car, either.

If there is to be some software written especially for your organization, don't contract for it by the hour. You and the vendor should reach an agreement on exactly what any special software will contain and how much it will cost. The vendor is the expert; why should you take the risk of how fast his employees work?

Customized software probably will provide you with more of what you individually want, but it will cost more and take longer to get operational. If you are going to have some of your software customized, the vendor should have more than one programmer on staff to prevent an unexpected project termination.

It is usually unnecessary to have a project written totally from scratch, but some customization is to be expected, because your business is unique. Be aware that an accounting system written from scratch will have close to 1,000 manhours of work, so don't go the part-time-programmer-by-the-hour route.

You should spend more time looking at software reports and manuals than seeing a demonstration. A demonstration favors the vendor instead of the buyer. It is easy to get caught up in the excitement of a demonstration and to forget making objective comparisons for your particular application. When you look at the reports and manuals, make notes for review with the vendor.

Know what you are buying, and how much you are paying. Then sign a contract responsible to both parties. The vendor should be someone you can trust and work with, or the project is doomed.

You and the vendor should agree on an installation schedule. The schedule should be reasonable and not too restrictive on either party. The vendor should have enough time to do a good job, and the buyer should have enough time to not totally disrupt his business.

Most total systems will take six months to a year to be *fully* operational. To be fully operational, a system must run parallel to your existing system and have its problems corrected. In addition, your personnel must be comfortable with the system.

Involve in your considerations all personnel who will be using the system, and take care of any objections up front. Once the decision is made to computerize, the employees should understand that debate and consideration are over. An employee

"If you do not make a good analysis of your business and its objectives before you buy a system, your chances of a successful installation will be almost nonexistent."

who doesn't want the computer can totally sabotage implementation if left unchecked.

How to Install Your System

You now have agreed to purchase a system. Set a schedule for its installation. The vendor should discuss any special installation requirements with you, and you should take care of these immediately. Each department that is going to have its functions computerized should prepare for the changeover.

Decide what information must be put on the computer. The information that has to be installed on the system should be gathered and organized prior to the scheduled time. Decide ahead of time what are going to be the check point items and how you are going to verify the system's accuracy. Plan who is going to enter what data and how their regular duties are going to be carried out during the process.

If you don't make adequate provisions for your employees during the data input, you will have a frustrated boss and frustrated employees. The person entering most of the data probably should be the one using that phase of the system normally. The regular users of the data will be more careful with its integrity because it will affect them later. The initial input of the data is also a good training program for the future user.

Expect some short delays in the arrival of the equipment, as last-minute equipment checkout may show "bugs." If you press the vendor to sticking to the hour, he may let "bugs" go by that will haunt you later. It is best that the vendor do a good pre-installation checkout at his facilities prior to installation.

Delays in shipment of specific models of computers from manufacturers can cause delays. You should check with your vendor at least once a week prior to delivery to keep abreast of what each of you is doing in preparation.

During the actual installation and training, check with all parties to be sure everything is proceeding properly. Good communication insures a smoother transition and, usually, a better installation. You may decide to have one of your employees coordinate the actual installation, but you as the principal should periodically review the progress. Your review insures that you are interested in the project and that it is important. Your review is also necessary to make sure the process doesn't get headed in the wrong direction.

Use Your Computer Successfully

You have now completed the installation of your system. Information is available to you that wasn't available before. When you begin to get this new wealth of information, develop ways to use it successfully. *YOU MUST DEVELOP INFORMATION UTILIZATION,* or the whole process will achieve only about 30 percent effectiveness. Be careful you don't become buried in information. You should get no more information than you can use effectively.

The computer can make possible a whole new world of regular customer communication and new market penetration. It can allow professionals to handle more clients in a more effective way. But unless you take an active role in making these things happen, they won't. Unless you start to look for ways the system can increase your business, you won't gain the full return on your system. This is the fun part: let your mind dream of new ways to use your new tool.

The time to start reading about different computer applications is after the purchase and installation of your system. If you read too much before installation, the multitude of claims soon will become confusing. If you have selected a good vendor, stay in regular touch with him. Involve your employees in sharing ideas on how the system can benefit you in new ways. If you have outside salespeople or other employees, don't forget to involve them, too. Your outside people have the best contact with your customers. Any tool that is not used doesn't provide a benefit.

Computerization is an ongoing process: it doesn't stop. You shouldn't wait until you have thought of all the possibilities for using the computer before buying one. Don't necessarily wait to buy because you assume tomorrow there might be a better one. You can procrastinate yourself right out of business. There is a right time to computerize in every organization. When your analysis shows a computer can save you money or make you money, it's time to computerize. □

Corporate Child Care

If you're in business, the odds are you don't provide your employees with any child care assistance, even though nearly half of all American women work outside the home. Here are some sound business reasons why maybe you should.

Julie Lumpkin

As more and more women have entered the work force in the past 10 to 15 years, they have carried the added responsibility of having to place their children in someone else's care — and many have been less than satisfied. To a large number of women, child care seems a problem relegated to them alone, with little support from their employers, their communities, or the government.

In 1970, 32.2 percent of women with children under 6 years of age participated in the labor force, while in 1980, 46.7 percent worked outside the home. Projections for 1990 show this figure will probably rise to 55 percent or more, meaning that about 10.5 million children under age 6 will have working mothers.

These statistics alone should be enough to convince people of a growing need for adequate, affordable child care outside the home. With all the social and economic changes of the past 20 years (including the skyrocketing divorce rate), women no longer are able or willing to forego a second paycheck. Even some men weary of the pressure of the single breadwinner role.

Lagging Badly

Yet, a study conducted by the Administrative Management Society in 1982 found that less than 1 percent of the firms surveyed offered child care assistance. Compared to 48 percent funding alcohol abuse counseling, 52.6 percent supporting company athletic teams, and 42 percent offering emotional counseling, it's obvious that corporations are lagging badly in child care initiatives.

Nor are communities keeping up with the growing need for child care, partly because social change is occurring faster than attitude change. And the social changes are dramatic. The traditional, one-breadwinner family now comprises only 10 percent of United States households.

More commonly, we see single-parent families headed by a woman and two wage-earner families. According to the National Organization for Women's Legal Education and Defense Fund, between 1970 and 1980, female-headed households increased by 82 percent. Of these, 15-20 percent of the white women were continuously poor or in poverty, with figures much higher for minority women. Further, one in five unemployed women are out of work because either they cannot find, or else cannot afford child care.

Meanwhile, having babies is once again considered "in" by the "I-want-it-all-career-home-family-baby-boom-generation." They've been postponing child-bearing, but for many, the biological time clocks are running out. The United States birth rate is the highest it's been in more than a decade. Previously dropping as low as 14.5 babies per 1,000 population in the 1970's, the rate climbed to 16.2 in 1980 and was expected to hit 17.1 in 1982. Even more astonishing, the birth rate among women 30 to 44 years of age has risen more than 15 percent in recent years.

Conflicting Demands

At the 1980 White House Conference on Families, the conflicting demands of work and family responsibilities was the number one concern of conference participants. In fact, 92 percent of the delegates recommended that business initiate family-oriented personnel policies. By a large majority, the delegates approved a proposal that said "business, labor, and government should encourage and implement opportunities and personnel policies that [will] enable persons to hold jobs while maintaining a strong family life."

A 1981 report on "Corporations and Two-Career Families" prepared by the Catalyst Career and Family Center observed that while corporations are mindful of the problem of two-career families, they have done very little so far to respond to those needs. For example, a majority of businesses recognize that men want to share parenting responsibilities, said the report, but only 9 percent offered paternity leave. Concluding that responsive attitudes are the precursor to change, the report advised that corporations soon will

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be obliged to put their beliefs into practice. A few already have.

"I do think there's a trend toward employer-assisted child care," says Dr. Joyce Veale, Assistant Professor of Family and Child Development at Winthrop College in Rock Hill, South Carolina, and a recognized expert on corporate child care. "Some people don't understand what it is and what can be done. They just don't see the possibilities."

With government cutbacks of Title XX funds and the increasing number of women entering and staying in the national labor force, "I think it's up to industry to take more responsibility for child care needs," Dr. Veale says.

Slowly Taking Responsibility

Industry, slowly but surely, is starting to take more responsibility. Employer-sponsored child care is the fastest growing area in the industry today. Findings by the U.S. Department of Health and Human Services showed that private sector participation in child care services increased 324 percent in 4 years, from an estimated 105 operating programs in 1978 to 415 known programs in 1982.

Still other companies acted more than 10 years ago. The best-known original programs are on-site, or near-site, centers, such as Boston's Striderite Corporation Children's Center; Corning, New York's, Corning Children's Center; and the Zale Corporation Child Care Center in Dallas. In the Southeast, Florida and North Carolina lead in the number of on-site and consortium centers, with Georgia following close behind.

Reflecting a national trend, many on-site centers in the Southeast are in hospitals. As one of the largest employers of women, hospitals are in the forefront of child care. Without such services, administrators find it very difficult to hire or retain medical personnel. Because hospitals illustrate three main criteria for justifying on-site care — a young staff, a largely female staff, and odd working hours — they provide an excellent model for companies that may be suited for on-site care.

PCA International, Inc. formerly Photo Corporation of America, in Matthews, North Carolina, is a fine example of a company meeting those criteria. Like other firms that chose on-site care, PCA started its program to reduce absenteeism and turnover and to increase productivity. After 11 years in operation, their Child Development Center enjoys unqualified support from upper-level management and the general employee population. (See related story on page 15).

Until recently, South Carolina's only on-site child care program was at Spartanburg General Hospital. But in September 1983, the Greenville *News-Piedmont* opened a Child Development Center for Little Paper People. The program currently serves about 45 children, ranging in age from six weeks to five years.

Unlike PCA's subsidized on-site center, the Greenville Center is a near-site facility, now completely independent of the participating company. The newspaper asked to be free of its financial support after it had paid for renovating five rooms at the Downtown Baptist Church and start-up costs for the center's operation.

The center is governed by a 10-member board comprised of newspaper staff and other parent-employees working in the downtown area. For income, it relies on parent fees and fund-raisers.

Other Programs

In addition to on-site centers, other programs have been used successfully by companies. Dr. Veale stresses the importance of identifying the specific child care needs in a company, which will vary depending on the company, its employees, and the community. "Don't go in with any preconceived idea of what the program ought to be," she advises. "Design *your* program to meet *your* needs."

In her 1981-'82 study of "Child Care Arrangement Alternatives in the Appalachian Region of South Carolina," Dr. Veale describes six common types of employer-sponsored child care centers.

- *On-Site or Near-Site* — Employer owns and manages a center, or

"Employers enjoy significant benefits from child care services: job turnover is 57 percent lower, absenteeism is 72 percent lower, and employee work attitudes improved 55 percent."

leases space to an outside child care provider.

- *Consortium* — A group of businesses fund a child care center, or group of day care homes, to serve the children of all their employees.
- *Vendor* — Employer purchases slots in child care centers or family day care homes.
- *Voucher* — Employer provides a subsidy to help pay employees' child care costs.
- *Information/Referral* — Employer researches and provides information about available community child care resources.
- *School-Age Child Care* — Employer supports programs that provide after-school care and summer camps for school-age children.

With these models as a guide, variations on the theme can be determined by the company's own needs assessment. Other services can also be provided through changes in personnel policies. The proposal from the White House Conference delegates cited flex-time, flexible leave policies for both sexes, job-sharing programs, and part-time jobs with pro-rated pay and benefits.

Because many companies are ill-suited or ill-equipped to fund on-site centers, these other alternatives are positive, lower-cost ways to address the concern of working parents. In a carefully planned program, the advantages far outweigh the disadvantages, both in tangible and intangible results.

For instance, the federal government has recently amended tax codes to encourage employers to sponsor child care programs. Employers are allowed to depreciate or amortize any capital expenses associated with developing a program. In addition, operational costs and subsidies used for child care services can be deducted from federal taxes as a regular business expense.

Significant Benefits

According to Katherine S. Perry in her "Survey and Analysis of Employer-Sponsored Day Care in the United States," employers enjoy significant benefits from child care services: job turnover is 57 percent lower, absenteeism is 72 percent lower, employee work attitudes improved 55 percent; new employees attracted to the company increased by 88 percent; publicity increased by 60 percent; and community relations improved by 36 percent.

While industries express concern over decreased job productivity, the benefits derived from employer-sponsored child care strongly suggest that companies are overlooking an obvious solution. Those companies experienced in delivering child care services attest to an increased productivity rate among their employees. Knowing their children are well-cared for relieves the guilt and anxiety of parent-workers, who are then better able to concentrate on their jobs.

The disadvantages of employer-sponsored care most often cited are high cost, liability, and the inequity of providing a benefit only relevant to parent-employees. To each criticism, advocates have a well-informed response.

In "The Bottom Line on Day Care" (*INC.*, May 1981), Andrew Fooner reported that a center for 25 to 75 children will require start-up funding of $50,000 to $150,000 and a yearly operating budget of between $70,000 and $250,000. But some companies, like Zale Corporation, which had sales exceeding a billion dollars in 1980, can easily afford the cost, and gladly pay it. Studies have also shown that in many companies child care costs are only a small percentage of the comprehensive employee benefit packages or other corporate expenses and perks. At PCA International, the Child Development Center accounts for only 7 percent of the total cost of the employee benefit program.

To the concern about liability, advocates answer that accidents rarely happen in responsible child care centers. Corporate-sponsored care generally is higher quality, because of the low staff-to-child ratio, and children have fewer opportunities to injure themselves. Also, employees' children often are covered by their parents' health insurance.

Finally, on the inequity issue, advocates simply argue that no benefits are equally appealing to individual employees. Depending on such factors as age and life style, life insurance and pension plans may be more important than vacations and child care. In fact, to address employees on an individual basis, companies are now experimenting with cafeteria-style benefit programs, where employees can choose which benefits they want at what cost.

These arguments against child care decrease in importance relative to the alternative the company chooses. Obviously, an information and referral program, for instance, involves less

commitment in cost and liability than an on-site center.

Before You Act

Practitioners advise any company interested in employer-sponsored child care to take several basic steps.

- Survey company employee needs.
- Recruit top-level management support.
- Recruit employee support.
- Identify funding sources.
- Draw up proposal for service as if preparing a business plan.
- Plan service carefully — design it to meet *your* needs.
- Don't maintain unrealistic expectations of the service's success.
- Hire an administrator with good business sense, a flexible personality, and a sense of humor.

Although the number of companies and government agencies that participate in employer-sponsored child care is abysmally low, many experts believe it's only a matter of time before child care services will be as casually accepted as health care benefits. An encouraging sign that child care is coming of age was the U.S. Senate's recent vote (in December 1983) to allocate $20,000 in start-up costs for an on-site center for Senate employees.

"Good parenting should be a value in our society," says Susan DeConcini, social worker and wife of Sen. Dennis DeConcini (D-Ariz.). Mrs. DeConcini lobbied for the center. "All this talk, talk, talk we have in the Senate about families, then you suggest something like this, and believe it or not, a lot of people never even connect the two. Good child care is the greatest strength you can give the family." □

For More Information

on employer-sponsored child care, contact:

Dean, School of Consumer Science
Winthrop College
Rock Hill, S.C. 29733
(803) 323-2101

Office of Children's Affairs
Division of Health & Human Services
Governor's Office
1205 Pendleton Street
Columbia, S.C. 29201
(803) 758-7604

Greenville News Child Development Center
305 N. Main Street
Greenville, S.C. 29601
(803) 233-5043

PCA Child Development Center
301 Crestdale Avenue
Matthews, N.C. 28105
(704) 847-8011

Options for Employer-Supported Child Care

The Models	Pros	Cons	Tax Advantages
1. Employer subsidizes employee's child care through a voucher or sliding fee system.	1. Can decrease absenteeism. 2. No responsibility for management of the homes/centers. 3. Flexible system that respects parent choice of type of care (family day care home, day care center, or baby sitter) and availability of care based on geographic differences. 4. Financial contribution can be adjusted to employee's income that fairly reflects ability to pay.	1. Employees not needing child care may resent extra benefit to a selected population. 2. Some paper work may be required to implement. 3. Sliding fee more difficult to administer due to variations in client income.	1. Employee must declare voucher as income but can deduct child care expenses on state and federal income taxes. 2. Deductible as a business expense by company if earmarked for employee. 3. If contribution to nonprofit sliding fee fund and not earmarked, is charitable deduction.
2. Employer purchases child care slots in specific family day care homes or day care centers.	1. Can decrease absenteeism. 2. No responsibility for management of the homes/centers. 3. Supports some existing child care homes or centers. 4. More parent choice if more than one home/center used. 5. No start-up costs.	1. If limited to a few programs, may not meet age-related or geographic needs. 2. Somewhat less visible service for community relations. 3. May result in disproportionate support to a few homes/centers.	1. Deductible as a business expense.
3. Employer sponsors child care program on or near work site.	1. A visible service that fosters good employee community relations. 2. Can aid in affirmative action. 3. Can decrease absenteeism and turnover by providing a regular, dependable service for employees. 4. Easily accessible to employees; simplifies transportation problems to some extent. 5. Can provide a place for parent child interaction during the work day. 6. Can have a high degree of control over many program policies.	1. Attendance may fluctuate, necessitating opening enrollment to persons outside the company or subsidizing losses. 2. Can limit parent choice regarding other types of care closer to home. 3. Expensive to set up; will probably need ongoing subsidy. 4. Can be difficult and costly to operate a program for all age levels (infants to 12 years). 5. Company is liable in case of accident.	1. Deductible as a business expense (Amended Internal Revenue Codes 162). 2. Costs of acquiring, constructing, and rehabilitating property and purchase of equipment can be deducted over a 5-year period (Revenue Act of 1971 and Tax Reduction Act of 1975.)
4. Employer funds family day care homes or a nonprofit day care center on or near the work site.	1-5. As in Model #3 are applicable. 6. Company is not legally liable for home or center. 7. Nonprofit board sets policy for the center. Board could include parents, committee reps., and staff. 8. Family Day Care Home Provider sets policy with parent cooperation and input.	1-4. As in Model #3 are applicable. 5. Less control over operation of home or center.	1. Employer contributions to trust funds for the establishment of child care programs or gifts to 501C3 nonprofit corporations are deductible as a charitable gift (1969 Amendment to the Labor Management Relation Act of 1947).
5. Employer contributes to agencies providing services to child care programs, children, and parents.	1. Can decrease absenteeism. 2. Promotes a positive public image at community level. 3. Supports and helps to insure the quality of programs in which employees participate. 4. Nonprofit group administers program, making company participation relatively simple.	1. Services supported would most often not be specifically earmarked for employees benefit. 2. Public image may not be as high as when supporting on-site, direct provision of child care.	1. If earmarked for employee, becomes a business deduction. 2. If contribution is not earmarked, can be considered a charitable deduction.

Source: Excerpted from a publication of the Greater Minneapolis Day Care Association, 111 East Franklin Avenue, Minneapolis, Minnesota.

PCA's Model Program

On Halloween at PCA International in Matthews, North Carolina, it's not unusual for a group of children from the Child Development Center to dress in costumes and trick-or-treat executives in corporate offices.

This is just one sign of a company that feels at ease merging work life and family life in an agreeable atmosphere for the corporate family.

Lively and outgoing, the children at PCA's Child Development Center (CDC) seem to know that they are family, too. Certainly, for these children, the lines between home and family and work and play can be quite blurred. Ask any one of them what they do at the center, and they'll likely reply, "I work here." A more than logical answer, since play *is* a child's work, say the child development experts.

Developmental Program

Administrator Joan Narron describes the program they provide as "developmental, with educational lesson plans." Starting with infants up to nine-year-old children (and a few occasionally older), developmental objectives are used to evaluate the children's progress. Discipline is taught in a stable, loving atmosphere through behavioral modification. "That's one reason why our children are so friendly," Mrs. Narron says. PCA Center children also consistently score high on first-grade entrance exams, regardless of socioeconomic background or race.

The Child Development Center was begun in 1972 after PCA founder Stuart Davis noticed a high absenteeism and turnover rate among his staff. As a young company, the North Carolina-based color portrait firm employed a young work force, 80 percent of whom were women. Suspecting the problem was due to lack of satisfactory child care facilities in the community, Davis decided to open an on-site center.

Starting with one certified kindergarten teacher and two children, the program expanded so quickly that extra floor space had to be rented to meet growing demand. Today, the center is equipped for up to 244 enrollees, but currently serves 100 children. Open Monday-Friday from 7:15 a.m. to 12:30 a.m., the hours accommodate three work shifts. The center holds a Double-A license from the state Day Care Licensing Board, meaning it voluntarily provides a lower staff-to-child ratio than required.

Driving Force

As the driving force behind the PCA Center since 1974, Joan Narron is careful to run her outfit like any prudent business operation. Soon after she was hired, she began collecting cost-efficiency data that proved the center was a sound business investment for PCA, effectively dispelling rumors that it would close when the founder retired. Remembering a lesson well-learned, Mrs. Narron keeps those figures before her supporters in upper management each year.

In 1981, the center's operating costs were $380,000, with $287,000 covered by income from parent fees, ranging from $25 to $40 per week. PCA kicked in the difference of $93,000. In addition, the center enjoys supportive services from accounting, payroll, and secretarial departments. Space, utilities, and maintenance are provided at no charge, as well as individual accident policies on each child.

While the company is generous in its financial support, the center returns the favor through savings in other areas. Officials estimate that the CDC is worth about $50,000 annually in publicity alone. As Mrs. Narron pointed out, "Every time the center gets publicity, it's good for the company. And what's good for the company is good for the stockholders."

The company saves further from a decrease in employee turnover and absenteeism, which was less than 1 percent last year for employees who used the CDC. Company figures show that, on the average, the center retains 25 employees per year who would otherwise leave, thus eliminating the $5,000 cost of bringing in and training a replacement. According to Mrs. Narron, the turnover savings alone more than pay for the company subsidy.

Also, with only a 4 percent rate of unemployment in Mecklenburg County in 1981, PCA received more than 3,500 unsolicited applications for employment, saving the cost of advertising vacancies. Officials attribute this response to the availability of child care. Not only is PCA better able to attract new employees, it also enjoys a higher retention and performance rate once prospects are hired.

As the world's largest color portrait company, PCA benefits in another, unique way by using the center's children as photographic models for promotional materials. A log is kept showing how many hours and how often a child models. Based on a local fee of $45 per hour, the use of free models saves PCA about $10,000 per year. Evidence of this happy arrangement is displayed on the CDC walls where 18″ x 24″ portraits of ballerinas and cowboys, newborns and grade schoolers, beam at passersby.

Enthusiastic Support

Organized under PCA's Human Resources Department, the center receives enthusiastic support from department Vice-President Ron Chatham. Drawn to PCA because of the Child Development Center, Chatham was interested in working for a company that showed corporate social responsibility.

"PCA had a different attitude about its employees," Chatham said, explaining that it was a nonpolluting company that wanted to put something positive back into the community. "The most startling example [of this attitude] was the Child Development Center."

The approval that Chatham feels for the center apparently typifies the overall company attitude. While the children trick-or-treat on Halloween, employees hold their own costume contest. (Last year, the Accounting Department won first place by dressing as a box of crayons.)

Departments also divide into fund drive teams, competing with each other to see who will raise the most money for local charities. And, at the company Spring Fling, employees and children alike play volleyball, tug-of-war, and relay race, while Vice-Presidents take pot shots in the dunking booth.

No question morale is high at PCA, but even more, a visitor senses a real esprit de corps among the staff. Yet, this only seems logical in a company that follows the motto, "With every transaction, every person must benefit."

Asked why he started the Child Development Center, Stuart Davis replied, "We're only doing [voluntarily] what every company will be forced to do 20 years from now."□

—Julie Lumpkin

Advertising in an Age of Recession

When a recession hits, the instinct of many companies is to save money by cutting back on advertising. This could spell disaster. Be aggressive, instead, and maintain or even increase your advertising budgets. You'll be glad you did.

M. Wayne DeLozier

During a recession, the reaction of most companies is to cut back on advertising. Recent studies, however, indicate that this is precisely the *wrong* thing to do. Instead, many companies actually have an opportunity during recessionary times to increase long-term sales, profits, and market shares by either maintaining or *even increasing* their advertising budgets.

Being aggressive during declining economic periods provides long-term benefits, whereas being timid during these times could mean disaster.

Most economists agree the majority of recessions since 1946 have been accentuated by underconsumption. This decrease in spending is primarily a *psychological* reaction. Instead of spending, consumers hoard. Then inventories increase, production decreases, workers lose jobs, and the recession deepens. In other words, psychological recession (depression) sets in. A potential solution to this problem, therefore, is demand stimulation, a product of advertising.

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Benefits of Advertising

Advertising, if properly used, not only can diminish the effects of business cycles in general, but also can provide aggressive companies with an opportunity to expand their market shares, sales, and profits.

Many companies take the short-term view that during recessions they should cut back on advertising expenditures to protect their "bottom line." Research indicates, however, that these companies hurt not only their own long-term profit pictures, but also their national economies as a whole.

Approximately 90 percent of all businesses in the United States use the percentage of sales method to calculate their advertising budgets. As a result, advertising expenditures are a function of either the previous year's sales or an estimate of the coming year's sales. With this budgeting approach, businesses spend less on advertising during recessions and more during times of prosperity, thus accentuating the cycle.

This article will attempt to support a notion referred to as countercyclical advertising. That is, a concept is put forth that suggests that companies should put greater emphasis on advertising efforts during recessions or periods of stagnating economic conditions and perhaps less effort during "boom" times.

Faulty Thinking

There are three common reasons advertisers give for cutting their budgets during times of recession.

(1) "People do not have money, so our efforts would be wasted."
(2) "We can afford to slash since competitors are doing the same."
(3) "The money saved on advertising helps us pay dividends to stockholders."[1]

Each of these arguments can be refuted easily.

The first reason cited above for reducing advertising expenditures is that "people do not have money." In research on the past four recessions, studies show that household income either fell very little (less than 2 percent) or actually rose by about 1 to 2 percent. For example, more people bought designer clothes during the 1981-'82 U.S. recession than ever before. Additionally, employment actually rose by a small fraction of a percent.

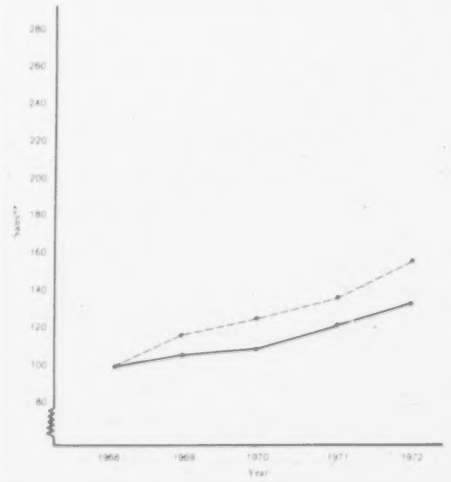
The second argument for cutting back on advertising is that "other companies are doing it, so why can't we? We'll save money." The problem with this attitude is that a company is *missing the opportunity* to take advantage of the lull in other companies' advertising activities. In effect, the cost to a particular firm is

"Being aggressive during declining economic periods provides long-term benefits, whereas being timid during these times could mean disaster."

an opportunity cost of losing potentially gainable market share, sales, and profits. Further, companies that are aggressive in their advertising efforts during a recession not only cut their losses in sales, market share, and profits during the recession, but also emerge in a significantly better position in all three categories when the economy comes out of the recession. Therefore, maintaining or increasing advertising expenditures during a recession is a wise investment in future market gains.

The third proposition that advertising budgets should be cut back so the company can pay dividends to stockholders is equally fallacious. If you pay extra dividends to stockholders in the short run, you deny them further dividends in the future upturn. That is, by not spending advertising funds in the present, you are not *investing* funds for growth in the future. Besides, stockholders expect lower dividends during a recession.[2]

EXHIBIT 1. Sales Performance of Companies That Cut, vs. Companies That Did Not Cut, Advertising 1968-'72



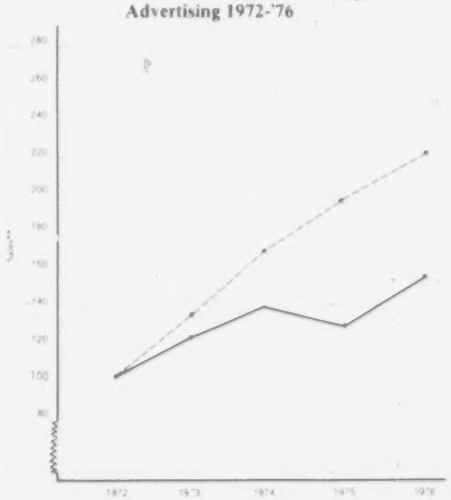
Source: American Business Press, Inc., *How Advertising in Recession Periods Affects Sales.* Published in 1970, 1974, and 1979. Recession year 1970.

Dashed line (---) represents companies *not* cutting advertising expenditures.

Solid line (——) represents companies cutting advertising expenditures.

**Sales is an index — based on 100 — as an indicator of change — percentage change.

EXHIBIT 2. Sales Performance of Companies That Cut, vs. Companies That Did Not Cut, Advertising 1972-'76



Source: Same as Exhibit 1, this article. Recession years 1974 and 1975.

Dashed line (---) represents companies *not* cutting advertising expenditures.

Solid line (——) represents companies cutting advertising expenditures.

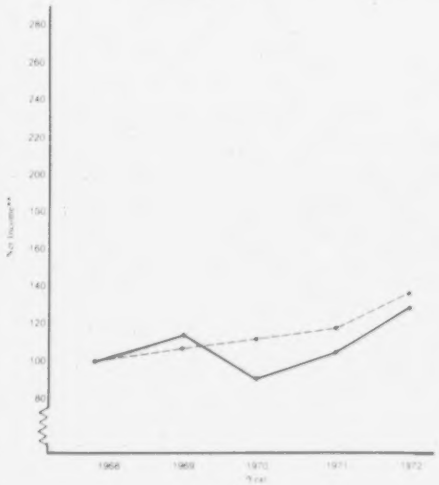
**Sales is an index — based on 100 — as an indicator of change — percentage change.

Research Evidence

J. Wesley Rosberg, in collaboration with the American Business Press, conducted research to determine how well businesses that maintained or increased advertising during recessions performed against those businesses that reduced their advertising expenditures. He and his associates analyzed data from 1947 to 1976.[3] All of his surveys support the idea that companies that maintain or increase advertising expenditures during a business slowdown are likely to enjoy greater sales, market shares, and profits. Exhibits 1-4 illustrate these points.

"James H. Graham, Director of Merchandising for General Motors Corp.'s Pontiac Motor Division, says, 'We take the attitude that when times are good, you *should* advertise, and when times are bad, you *must* advertise.'"

EXHIBIT 3. Net Income of Companies That Cut, vs. Companies That Did Not Cut, Advertising 1968-'72



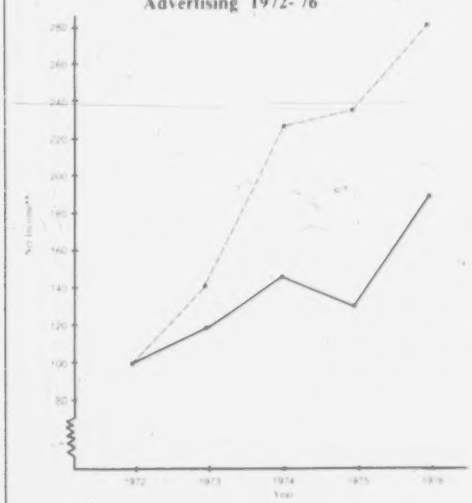
Source: Same as Exhibit 1, this article. Recession year 1970.

Dashed line (---) represents companies *not* cutting advertising expenditures.

Solid line (_____) represents companies cutting advertising expenditures.

**Net Income is an index — based on 100 — as an indicator of change — percentage change.

EXHIBIT 4. Net Income of Companies That Cut, vs. Companies That Did Not Cut, Advertising 1972-'76



Source: Same as Exhibit 1, this article. Recession years 1974 and 1975.

Dashed line (---) represents companies *not* cutting advertising expenditures.

Solid line (_____) represents companies cutting advertising expenditures.

**Net Income is an index — based on 100 — as an indicator of change — percentage change.

Although Rosberg studied only industrial companies, the same agreement can be made for consumer advertising as well. Airlines and auto manufacturers in the United States, for example, showed similar results. During the 1974-'75 recession, companies that increased their ad budgets in these two industries also either increased their market shares and sales, or, at the very least, maintained them.[4]

McGraw-Hill, using financial data collected by its subsidiary Standard and Poor's Corp., found that during the 1974-'75 recession, companies that did *not* cut advertising budgets had sales approximately 12 percent higher than those companies that *did* cut their ad budgets. Among the nearly 500 companies studied, those that maintained or increased advertising expenditures during that recession also increased their market shares and recovered from the depressed period more quickly.[5]

Consumer product companies like Procter & Gamble, General Foods, and Lever Bros. do not retreat from their advertising programs because of a single recessionary economic period. Instead, they forge ahead with their advertising expenditures and the introduction of new brands. James H. Graham, Director of Merchandising for General Motors Corp.'s Pontiac Motor Division, says, "We take the attitude that when times are good, you *should* advertise, and when times are bad, you *must* advertise [emphasis added]."[6]

Recession advertising advocates also point to other case histories to

support their beliefs. As examples they suggest that the 1975 setbacks of Avon Products and Hershey Foods were due, at least in part, to advertising cutbacks, and that the increased success of Phillip Morris and Revlon was due to heavier advertising during the same recessionary period.[7]

Although maintaining or increasing advertising might be the better action for some companies and products, this aggressive behavior is probably not a good strategy for *all* companies and products. The problem as marketers is to identify and classify those industries in which sustained advertising can lead to greater market shares for the aggressive marketing communicator and to quicker recoveries from recessionary periods. Such research probably would require an understanding of demand elasticities as a function of advertising during a declining economy. The current but incomplete evidence of maintaining or increasing advertising during a stagnating economy is compelling, however, and marketers must seriously consider this approach.

Companies that are more aggressive during times of recession are ones that come out winners when the recession is inevitably over. These companies realize that every barrier, every obstacle, and every recession present themselves as *opportunities* to increase sales, profits, and market shares in the future. They view their advertising as an investment, not an expense.

Media Strategy in Recessions

Although little research has been conducted on the shift in emphasis on media expenditures during a recession, some observations can be made. Several experts advise companies to shift their advertising funds from network television to print, radio, and, in some cases, spot television during an economic downturn.[8] This logic seems to have merit since network television rates have inflated more quickly than those of the other media. Advertisers also believe they can target their markets more efficiently with nonnetwork TV advertising. More advertisers are switching to radio, billboards, regional magazines, sales promotion, and specialty advertising, among other media. These media can be targeted and produce substantial cost savings and results.

Sales Promotion — An Alternative

Although advertising is the prevalent mode of informing and reminding people of companies' products, sales promotion is a rapidly growing marketing communications tool that holds the promise to do the same.

Sales promotion and specialty advertising were key tools companies used in the recession of the early 1980's to fuel economic recovery. Coupons, sweepstakes, refunds, contests, and specialty items were, and are, used extensively to create excitement, interest, and purchases for companies' brands of products.

Guidelines to Follow

There are certain guidelines to enhance a company's market share, sales, and profits during a recession. These guidelines might also serve to reduce the severity of a nation's recession, if followed by the vast majority of the concerns within that country.

1. Use advertising as an investment, not merely as a year-to-year expense.
2. Maintain advertising during periods of recession. In general, firms that do, increase market share, sales, and profits, both during and after the recession.
3. "Push basic products with enduring consumer franchises . . . Also, push" sure sales.[9] Many companies during recessions shift money from high-profit brands to weak brands to save them. This approach is a mistake.
4. When a product *begins* to approach obsolescence, milk it for all its worth.
5. Develop and promote products that offer consumers convenience, durability, and energy efficiency. These are products that consumers want most in recessions and for the future.
6. Maintaining advertising during a recession keeps sales force costs lower than if advertising is reduced. These expenditures keep consumer "top-of-mind" awareness, thereby increasing the sales representative's chances of making the sale while minimizing his investment of time.
7. Successful, long-term advertising requires *continuity*. Therefore, maintain advertising during recessions to avoid market share erosion in the short-term and to increase market share in the future upturn.
8. Develop advertising budgets using more sophisticated methods, such as quantitative models or objective and task methods. Percentage of sales methods only exacerbate the company's and economy's problems.
9. Set up an advertising contingency fund for economic downturns. These funds can be used to stimulate demand during recession.
10. Examine the company's media mix during recession to determine if there are better immediate ways to allocate advertising funds.

Although there are certainly other guidelines to consider in governing the marketing communications process in times of stagnating economies, these ideas do suggest appropriate actions for a company to consider. □

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[1]Nariman K. Dhalla, "Advertising As an Antirecession Tool," *Harvard Business Review* (January-February 1980): 158.

[2]Ibid., pp. 158-162.

[3]J. Wesley Rosberg, "Is a Recession on the Way? It's No Time to Cut Ad Budgets," *Industrial Marketing* (April 1979): 64-70.

[4]Dhalla, "Advertising," p. 163.

[5]"Advertisers Keep Spending into the Recession," *Business Week* (August 4, 1980): 75.

[6]Ibid.

[7]Niles Howard, "Advertising Versus Recession," *Dun's Review* (April 1980): 127.

[8]"In a Slowdown: Flexibility's the Word," *Marketing and Media Decisions* (January 1980): 58.

[9]Ibid., p. 59.

Interest Rate Deregulation — What Has Happened?

When interest rates are deregulated, consumers often fear they will have to pay more to borrow money. But in South Carolina, rates didn't skyrocket. Some, in fact, declined. Here's a study that tells why.

Olin S. Pugh

Interest rates for consumer credit loans were deregulated in South Carolina on July 1, 1982. Generally, creditors were authorized to charge either 18 percent or any rate that does not exceed the rate filed with the Department of Consumer Affairs and posted in the creditor's place of business.

What did market rates do over the course of a full year of rate deregulation? The Association of Lenders and Creditors commissioned a study to find out. After a full year's study, the total effects of rate deregulation cannot be decisively measured, but some general results can be seen.

Results

1. *There has been no increase in the overall cost of consumer credit in South Carolina.* Indeed, the reverse may even be true. New car rates at banks in South Carolina were *below* the national average during the year following deregulation.

2. *General market rates of interest declined over the survey period, making it more feasible for creditors to reduce their rates.* While short-run changes in money market rates cannot be fully reflected in reduced consumer credit rates, there are limited reductions possible. Other cost factors such as administrative and credit losses, as well as overall uncertainty as to the future of the price level, tend to keep consumer rates relatively inflexible.

3. *There are significant differences in rates charged by individual creditors within each industrial group, and wide differences in rates for various categories of credits.* In certain, fairly standardized fields, such as new car loans and open-end credits, rates tend toward greater uniformity than in such areas as small personal loans or used car credits. There is still the influence on rates of market segmentation. Finance companies typically operate in a rather different market than do banks, for example.

4. *There is competition in the consumer credit markets in South Carolina, and uniform rates do not prevail. Consumers may now "shop" for credit more effectively than in the past.* The present legislation facilitates credit shopping by having rates posted in lenders' offices. Consumers should be encouraged to make more comparisons of rates than they have in the past.

5. *Rate deregulation has not resulted in turmoil in the markets for consumer credit in South Carolina.* Most creditors have lowered their rates since deregulation in response to the competitive forces of the market. Such a result should be of *benefit* to the general public.

Mailed Questionnaire

A total of 128 creditors was surveyed by means of a mailed questionnaire. Included were 33 commercial banks, 30 savings and loans, 18 state credit unions, 31 finance companies, and 16 car dealers. Responding were 97 firms or a very high 75.8 percent. Throughout the sample, large, medium, and small lenders were included. Within the financial sectors of banks, savings and loans, and finance companies, the major part of each industry is included. More than 75 percent of the resources of the three groups are included in this study.

Unsecured and Secured Loans

There are differences in rates on unsecured loans among the several lending groups. Finance companies report higher charges than other lender groups, and credit unions

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generally charge lower rates. Commercial banks and savings and loans charge reasonably comparable rates on unsecured loans. Finance company rates on loans above $1,000 increased after deregulation but declined somewhat thereafter. These differences, which have been observed in many other studies in the past, are due in part to dissimilarities in both cost factors and credit risks. The maximum rate schedules filed by the different groups reflect these industry differentials.

With respect to changes in the prevailing rates between June 1982 and June 1983, *rates on unsecured loans declined in almost all cases except among the finance companies.* Thus for unsecured bank loans of $300-400, rates declined from 29.2 percent to 25.5 percent (13 percent); for loans of $1,000-1,200, bank rates fell from 21.5 percent to 17.7 percent (18 percent); for the unsecured loans of $2,500-5,000, rates declined from 18.5 percent to 16.1 percent (13 percent). Savings and loan and credit union rates also declined over the year. Finance company rates both increased and decreased over the period. Composite rates for the larger unsecured personal loans increased slightly, while rates on the smaller loans declined somewhat.

Most of the rates quoted on unsecured personal loans *declined* over the first year's experience of deregulation. *In general, the finance company rates were higher in more instances than other creditors.* Previous rate regulation had constrained finance companies through bracket limitations and when deregulation occurred, they were more likely to raise their rates than other lenders. High administrative and credit costs, along with the general costs of borrowed funds, led to many of the increases in finance company rates.

Loan data for secured personal loans are rather similar to the results for unsecured personal loans. Secured loan rates are somewhat lower than those for unsecured credits. Credit union loan rates are quite low because many of the reported credits are loans secured by existing share account balances. In terms of relative rate changes, the representative or composite rates charged by banks and savings and loans declined for all loan sizes during both the June-December 1982 period and the longer June 1982-June 1983 period. Finance company rates tended to rise slightly, immediately after deregulation, but stabilized and decreased over the next nine months.

For the June-December 1982 period, 40.0 percent of all rates quoted declined, 34.0 percent remained unchanged, and 26.0 percent increased. Over the longer June 1982-June 1983 period, 52.7 percent of all rates were lower, 24.0 percent were unchanged, and 23.3 percent increased slightly. *Again, most of the increases occurred in the finance company group. All in all, secured personal loan rates tended to be lower after deregulation than before.*

New and Used Car Loans

This highly competitive market is watched closely by both consumers and manufacturers. The decline in rates in this market is perhaps the most noticeable of any other rate structure being studied, with the possible exception of the mortgage market. The market rates on car loans are distinctly lower than the maximum rates filed for such credit.

New car loan rates by banks declined from 16.3 percent in June 1982 to 13.3 percent by December, and to 12.2 percent in June 1983 — an overall decrease of 25 percent. Savings and loan and car dealer rates also declined sharply, but finance company rates did not decline nearly as rapidly. Used car loan rates declined over the period, but the overall rate structure remained at a higher absolute level than for the new car market. Used car rates at banks declined from 17.7 percent to 14.1 percent, or 20 percent.

The vast majority of reporting firms reduced their new and used car loan rates in both the June-December 1982 and the June 1982-June 1983 periods. For the first period, only 8 percent of the respondents showed an increase in rates for both new and used car financing, while 66 percent of the responses were lower in December than in the previous June. For the longer period, June 1982-June 1983, 86 percent of the responses showed lower rates at the end, while 7 percent had rates unchanged and 7 percent indicated an increase in rates. New car rates at finance companies in June 1982 were rather low, increased later in the year, then declined in 1983. Various car sales promotions no doubt have made rate comparability more difficult in recent periods.

The same general pattern existed for used car loan rates as for new car rates. While the rate level for used car financing is consistently above that for new cars, it did decline for almost all institutions.

"There is competition in the consumer credit markets in South Carolina, and uniform rates do not prevail. Consumers may now 'shop' for credit more effectively than in the past."

All in all, car financing rates did not rise after rate deregulation in South Carolina. Indeed, 90 percent of the reporting firms had lower rates on new cars at the end of the first year, while 80 percent had lower rates on used car loans.

Open-End Credits

Data were obtained for open-end credits (credit cards) under $650 and above $650 for 1982 and 1983. This survey could not adequately cover many operating plans in the credit card field. For example, annual charges for cards and changes in handling customer float are not reflected in the rates quoted. Higher administrative costs and credit losses had added to the overall costs of providing credit card services.

Open-end credit under $650 remained substantially unchanged during the period under study. For the June-December 1982 period, 87.5 percent of the firms reported rates unchanged; for the June 1982-June 1983 period, 88.0 percent reported rates unchanged. Open-end credits above $650 are somewhat lower in actual rates, but the overall changes are substantially the same as for the smaller credits. In looking at both sizes of open-end credits, the net results show that 81 percent of all respondents had rates unchanged during the June-December 1982 period, 4 percent reported rate reductions, and 15 percent reported rate increases. For the June 1982-June 1983 period, 86 percent reported no change in rates, 6 percent reported rate reductions, and 8 percent had some increase in rates. The final conclusion must be that *rate deregulation did not cause increased rates on open-end credits.* The relatively low level of rate reduction is probably explainable in terms of high administrative and credit costs.

First and Second Mortgage Loans

Creditors are not required to file rates on first mortgage loans with the Department of Consumer Affairs, but must file on second mortgage credits if rates exceed 18 percent. All responding firms do not make either first or second mortgage loans, so the number of respondents is somewhat limited.

Representative second mortgage rates were available at over the 1982-'83 period from banks, savings and loans, and credit unions. Finance company representative rates on second mortgages ranged from 24 to 18 percent. Representative rates for banks declined from 18 percent in June 1982 to 14.5 percent in June 1983 (19 percent); for savings and loans, the effective composite range was the same. Credit union rates were somewhat lower, and finance company rates somewhat higher.

In the total area of second mortgage responses for both size credits, 61 percent of the composite rates were lower in December 1982 than in June 1982, 22 percent were unchanged, and 17 percent reported higher rates. For the longer June 1982-June 1983 period, 84 percent of all respondents showed rate reductions, 5 percent had rates unchanged, and 11 percent reported rate increases.

First mortgage rate changes are not as available since many of the respondents are not active in the area in general, and even fewer firms extend adjustable rate first mortgage credits. First mortgage composite rates declined markedly at banks, savings and loans, and credit unions, falling from about 16 to 17 percent in June 1982, to about 15 percent in December 1982, and to slightly more than 13 percent in June 1983. Fixed rate conventional mortgage rates declined in 75 percent of the cases between June and December 1982. For the June 1982-June 1983 period, fixed-rate mortgage rates were lower in 91 percent of the cases, and the balance were unchanged. Certainly, the evidence must lead to the conclusion that *deregulation has not brought rate increases in fixed-rate mortgages.*

Variable rate mortgages are not reported to a significant degree by any group except the savings and loan industry. All of the firms reporting alternate mortgages in both June 1982 and June 1983 indicated that basic rates were lower over the period. For the June 1982-June 1983 period, all firms reported lower rates as well. No very precise comparison of variable rate data is feasible since there are so many different plans available in this field. All in all, however, *rates on variable mortgages do show a rate reduction over the period. For both fixed-rate and variable mortgages reported for the June 1982-June 1983 period, the total results show a reduction of rates in 94 percent of the cases, rates unchanged in 3 percent, and rates increased in 3 percent.*

Filed Rates and Market Rates

All firms extending consumer credit at rates above 18 percent (except for first mortgages) are required to file their maximum rate schedules with

"In general, the finance company rates were higher in more instances than other creditors."

the S. C. Department of Consumer Affairs as of July 1, 1982. These filed rates are also posted in the offices of the creditor firms.

Filed rates tend to be above actual market rates. Faced with uncertainty as to the future course of rates and costs, many creditors tend to file rates somewhat above those presently being charged. For example, the representative filed rates by banks and savings and loans for secured personal loans of $1,000-1,200 were about 21 percent while the actual representative rates charged were about 16 percent. Finance company filed rates and actual rates tend to be closer together than in other cases. Since creditor customers may observe filed rates by the firms with which they deal, there should be a greater uniformity of filings and actual charges.

In a diverse market with many creditor groups and many types and sizes of credit, it is to be expected that rate filings will not be at all uniform. For example, market rates on unsecured personal loans of $1,000-1,200 were at least 20 percent below filed rates in 52 percent of the responses of banks, and in 36 percent of the cases for savings and loans. In the case of new car financing, 70 percent of the actual rates by banks and 100 percent of the rates by car dealers were at least 20 percent below filed rates. While there is nothing particularly harmful about having market rates significantly below filed rates, in the long run it may be advantageous to both the creditors and the public to have more uniformity than is presently the case. □

Bettering Your Small Business Odds: Try Counseling

The number of new, small businesses is increasing steadily, but so is the failure rate for these smaller firms. Outside counseling is one answer.

Richard B. Robinson, Jr., Beth B. Freeman, and William F. Littlejohn

Small business is an important component of the American economy. Not only do small firms comprise nearly 95 percent of all businesses in the United States, they also are a vital source of economic growth. Small businesses have created three million new jobs during the past 10 years, while the 1,000 largest American firms have recorded virtually no net increase in employment.

Over this same period of time, there has been a substantial increase in the number of new business incorporations. Dun & Bradstreet estimated that 587,000 new businesses were incorporated in 1981, more than double the 1970 figure of 264,000. This surge in entrepreneurial activity is even more surprising because it has occurred despite a lagging United States economy and high inflation.

There is another side to this story, however, that is less encouraging: the failure rate among small businesses, particularly young ones, is quite high. Experts estimate the failure rate for small firms less than five years old to be 54 percent. This figure may even be underestimated in today's economy, since 1982 saw the number of business bankruptcy filings soar to a record 65,807, the highest level in more than 20 years. Approximately 99 percent of those filings were small businesses with fewer than 100 employees.

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Trend to Continue

In spite of the obviously high risks associated with founding a new business, experts in small business expect the trend toward higher levels of entrepreneurship to continue. One reason is certain demographic characteristics that will influence greater numbers of new business incorporations. Included are the baby boom generation's approaching adulthood, and later retirement ages for those individuals already employed in large organizations. When combined with the high expectations of today's workers, these factors will stimulate more people to become entrepreneurs in their search for prosperity and enrichment. In other words, as large corporations provide relatively fewer opportunities for employment and advancement, many individuals will become frustrated with corporate life and decide to found their own companies.

We have, then, a combination of factors that represent a dilemma for entrepreneurs, policy makers, and the institutions that serve the small business sector of our economy. How can the failure rate of small businesses be reduced in order to foster continued economic growth and encourage these higher levels of entrepreneurship?

Numerous investigations have addressed this issue. Researchers have been particularly interested in discovering why some firms are more successful than other, comparable businesses. One of the findings to emerge from this stream of research is that planning by small firms can have a positive impact on performance. But small business owners/entrepreneurs frequently lack the time and expertise required for effective planning.

While large organizations often employ a cadre of professional planners, the small business owner/manager is faced with financial constraints that preclude the presence of a professional planner on his or her staff. An attractive and viable alternative advocated by many knowledgeable experts in small business is the use of outside consultants to enhance small firm planning. By utilizing outside man-

"Experts estimate the failure rate for small firms less than five years old to be 54 percent."

agerial consultants, entrepreneurs can compensate for their deficiencies. In fact, many researchers believe this process will lead to the development of better strategies for the firm, as well as influence the owner to devote more time and energy to this essential management function.

Consultants Available

Any number of outside consultants are available to small businesses who wish to take advantage of this service. Examples include private management consultants, accountants, attorneys, an outside board of directors, and government-subsidized consulting agencies. Because of the high costs associated with most available outside counseling, federal and state governments, in their efforts to stem small business failures, have sponsored several programs to provide affordable outside consultants. Some of their more notable national endeavors include the Service Corps of Retired Executives (SCORE) and the Small Business Institute Program and Small Business Development Centers (SBDC). Each of these programs is totally or partially funded by the federal government, thereby reducing the cost of consulting fees for small business owners. In effect, the intent of these programs is to provide small business owners or potential entrepreneurs with outside counsel to enhance their efficiency and effectiveness in the marketplace.

A recent study sought to determine whether the use of one type of outsider, the SBDC consultant, is of value in small firm planning. The purpose of this research was to determine the impact of SBDC services on both new and existing businesses receiving counseling in terms of sales growth, profits, and employment. The study also sought to measure the "indirect" impact of SBDC consulting efforts in terms of state and federal tax revenues generated by the client firms.

The results of this research indicated that SBDC-counseled existing businesses appear to have outperformed their contemporaries by a substantial margin during the time period under investigation. SBDC clients achieved significantly higher sales and profits and created more new jobs on average than the general population of nonagricultural firms in the same geographic region.

The study of outside consulting for proposed ventures was more exploratory in nature because of a lack of benchmarks for comparison. However, the lower failure rate experienced by SBDC-consulted ventures and their estimated performance statistics appear to show a positive relationship between outside planning and success in the marketplace by new firms.

Increased tax revenue estimates further support the contention that involvement of outsiders in the planning process among small firms accrues benefits not only to the businesses but also to the economy as well. Even when the costs of government-supported consulting programs such as the SBDC are deducted from the additional tax revenues, the tax impact is estimated as still substantially positive.

SBDC

In the mid-1970's, eight Small Business Development Centers were established by the Small Business Administration in cooperation with state governments and universities around the country. The purpose of this pilot program was to provide free management and technical assistance to local small businesses in order to foster their growth and productivity. It was intended that the SBDC program would do for the small business sector what the Agricultural Extension Service had done for the farming community.

A consortium of four state-supported universities in South Carolina was one of the early participants in the SBDC program. Clemson University, South Carolina State College, The University of South Carolina, and Winthrop College joined forces to establish the South Carolina SDBC in June 1978.

The staff consultants at the South Carolina SBDC are graduate students in business or law who have had previous work experience. As such, these "outsiders" have the expertise, resources, and objectivity required to counsel small firms in the basic and functional areas for the purpose of strategic planning. In general, these SBDC consultants address a broad range of problems faced by small firms, including prebusiness start-up and overall business strategy.

For existing businesses to be included in this study, they had to have received at least 12 hours of counseling during the period under study. (This time frame represents a reasonable length of involvement necessary for the consultant to make some impact on the plans and operations of the business.) In addition to being independently owned and operated (franchises and subsidiaries were excluded), the 19 businesses finally chosen also had to have employed fewer than 50 workers and have had annual sales below $3 million.

Since a substantial activity for the SBDCs is counseling new venture clients, a separate analysis was undertaken to determine the impact of SBDC counseling on potential entrepreneurs. A firm was considered new if it was thinking about or just starting, a new, independent business venture at the time SBDC assistance was initiated.

The South Carolina SBDC counseled 288 clients that were considering starting a small business. These aspiring entrepreneurs were asked to respond to a mail survey about the nature of the SBDC services and their post-SBDC decisions to (or not to) initiate a business. A total of 50 usable responses was obtained.

Results*

Existing Businesses

Table 1 contrasts the average performance of existing, SBDC-counseled businesses with the average for all South Carolina businesses in terms of sales, employment, and profit growth.

Table 2 suggests the aggregate experience of SBDC-counseled businesses was *$22.4 million more in sales, 97.4 more jobs created, and $1.4 million more in profit than would have been experienced had they performed as the average South Carolina business did during this time.*

In Table 3, these incremental performance improvements are converted into the average and total increase in tax revenues for the state of South Carolina over and above what would have been paid if the sample had performed as the average South Carolina business did.

It should also be noted that other tax revenue sources such as property taxes and highway use taxes are not included in Table 3 computations. These figures suggest that SBDC-counseling activity with *existing* business has *added approximately $1.1 million to state tax revenues.*

*The methodology for determining "aggregate impact" and "incremental improvements" was developed by researchers at the University of Georgia at the request of the Director of the National SBDC Directors Association. The purpose was to provide a standard basis for *all* SBDCs to use in a nationwide impact evaluation. This methodology was used in this study in order to comply with the standardization requested by the National SBDC Directors Association.

TABLE 1. Average Performances of SBDC-Counseled Businesses vs. All South Carolina Businesses

Area	Average Percentage Change-SBDC-Counseled Sample (N=19)	Average Percentage Change — All South Carolina Businesses	Incremental Change — Small Business Sample[a]
Sales	34.4%	-3.5%	37.9%
Employment	9.8	-1.8	11.6
Profits	30.9	-3.5[b]	34.4

[a]The incremental percentage change represents the difference between the average percentage change for the small business sample and that for all South Carolina businesses.

[b]Estimated using the change in sales experienced during this time.

TABLE 2. Average Incremental Change for All SBDC-Counseled Businesses

Area	Percentage Incremental Change	×	Average Pre-SBDC Figures	=	Average Absolute Incremental Change	Aggregate for Full Year of SBDC Clients (N=100)
Sales	37.9%	×	$591,788	=	$224,287.65	$22,428,765.00
Employment	11.6	×	8.4 Jobs	=	0.974 Jobs	97.4 New Jobs
Profits	34.4	×	39,379	=	$ 13,546.38	$ 1,354,637.60

TABLE 3. Incremental Change in Tax Revenues for Existing Businesses in South Carolina[a]

Tax	Average Change	Aggregate Change (N=100)
Sales Tax (Average Incremental Change in Sales × .04)	$ 8,971.51	$ 897,150.61
Personal Income Tax (Average Incremental Change in Number of Employees × 552.00)[b]	508.43	50,842.80
Corporate Income Tax (Average Incremental Change in Profits × .07)	948.25	94,824.63
TOTAL	10,428.19	$1,042,818.04

[a]For 12 months, 1981-'82, the average incremental increase in federal tax revenues was estimated at $5,368.97. Extrapolating this amount across the full year population of existing clients yields federal tax revenues of $536,897.00.

[b]Average annual personal state income tax in South Carolina was $522 per employed person in 1981.

"Planning by small firms can have a positive impact on performance, but small business owners frequently lack the time and expertise . . . . An attractive alternative is the use of outside consultants."

New Businesses

The results regarding the value of outside counseling for new business enterprises yielded some very encouraging data in terms of implied SBDC impact on sales and employment. All impact estimates studied revealed a positive effect from both the liberal and the conservative viewpoints. In addition to these obvious effects, the following tentative conclusions can be drawn from the responses to this survey.

- *Only 1 out of 4 aspiring entrepreneurs decided to go into business after obtaining SBDC counseling. Since national statistics suggest 9 out of 10 new business ventures quickly fail, this suggests that the SBDC may be doing a good job of screening and discouraging ill-advised business ventures.*

- *Of those that did go into business, 86 percent are still in business after two years. This compares favorably with a national failure rate of 54 percent within two years. In fact, the number of business failures nationwide in 1981 rose to a record high of 43 percent, further supporting the positive effects of SBDC counseling.*

The final analysis (Table 4) translates tax revenue projections into an estimation of the overall cost/benefit of the SBDC program. The tax revenues are based solely on projections associated with *existing* businesses receiving in-depth counseling, while the funding figure is for all SBDC activities and programs. This last table illustrates the bottom line for policy decision makers. When utilizing only *direct* tax benefits from existing businesses (all indirect benefits are excluded) and including costs of SBDC continuing education courses, the results suggest a positive cost/benefit relationship for this program at both the state and federal levels. Thus, it would appear these tax dollars are being expended for assistance that benefits not only small business but the taxpaying public as well.

In conclusion, this study suggests that *small business owner/managers, in general, may be well advised to seek outside counseling from their local SBDC. The potential posttive benefits of doing so clearly outweigh the marginal investment of their time.* Further, this SBDC program appears to be one of the few government sponsored programs that may net larger tax revenues than its cost, while fulfilling its mission of assistance to the small business sector.

TABLE 4. Annualized Cost/Benefit of SBDC Counseling in South Carolina, 1981-'82

Tax	Estimated Annualized Tax Revenues 1981-'82	Funds Expended By SBDC for All Programs[a] 1980-'81	Ratio: Benefits to Cost
	Using Only Aggregate Impact of Existing Businesses		
State	$1,042,818[b]	$100,000	10.4 : 1
Federal	536,897[c]	300,000	1.8 : 1
TOTAL	$1,579,715	$400,000	
	Combining New and Existing Businesses[d]		
State	$1,464,399	$100,000	14.6 : 1
Federal	753,951	300,000	2.5 : 1
TOTAL	$2,218,350	$400,000	5.6 : 1

[a]In addition to funds spent on counseling *existing* businesses, this figure also reflects fund spent on 77 continuing education courses (reaching 1,308 participants), counseling for 288 new ventures, numerous research projects, and 862 short-term counsulting engagements.

[b]See Table 3.

[c]See Table 3, footnote a.

[d]These figures include the tax revenue impact of new, SBDC-counseled businesses that were started after counseling.

SALES IMPACT ON SOUTH CAROLINA

Liberal Estimate

$184,940[a] × 76.3 firms = *$14,110,922 in new sales* from new, SBDC-counseled businesses.

Conservative Estimate

$84,012[b] × 76.3 firms = *$6,410,116 in new sales* from new, SBDC-counseled businesses.

EMPLOYMENT IMPACT ON SOUTH CAROLINA

Liberal Estimate

7.5 employees × 76.3 firms = *572.3 new jobs* from new, SBDC-counseled businesses.

Conservative Estimates

6.3 employees[c] + 76.3 firms = *480.7 new jobs* from new, SBDC-counseled businesses.

TAX REVENUE IMPACT ON SOUTH CAROLINA

Sales Tax

Liberal Estimate

$14,110,922 × 4% = *$564,437 in new sales tax revenues* from new, SBDC-counseled businesses.

Conservative Estimate

$6,410,116 × 4% = *$254,405 in new sales tax revenues* from new, SBDC-counseled businesses.

Personal Income Tax

Liberal Estimate

7.5 employees × $522[d] = *$3,915.00 in new income taxes.*

Conservative Estimate

6.3 employees × $522 = *$3,288.60 in new income taxes.*

Corporate Income Tax

Liberal Estimate

$1,013 profit + 76.3 firms + 7% = *$5,410.43 in new corporate tax revenues.*

Conservative Estimate

$2,261[e] × 76.3 firms × 7% = *$12,076.01 in corporate tax revenues.*

TOTAL TAX IMPACT ON SOUTH CAROLINA WITH SBDC-COUNSELED NEW VENTURES

Liberal Estimate

The total impact of new venture SBDC counseling on state tax revenues is $564,585 in sales tax + $3,915 in personal income tax + $5,410 in corporate income tax = *$573,910 per year in new state tax revenue.*

Conservative Estimate

The total impact of new venture SBDC counseling on state tax revenues is $254,405 in sales tax + $3,289 in personal income tax + $12,076 in corporate income tax = $269,770 per year in new state tax revenue.

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[a]288 proposed new ventures per year × 26.5 percent that go into business = 76.3 new SBDC-counseled businesses.

[b]Eliminating the two highest and two lowest firms (sales achieved) in the sample yields an average of $84,012 annual sales per SBDC-counseled new ventures.

[c]Eliminating the two highest and two lowest client employment situations.

[d]Average amount of state income taxes in South Carolina per individual employed person in 1981.

[e]Eliminating the two highest and two lowest profit/loss firms yields an average profit of $2,261 per firm.

A Development Bank for South Carolina?

South Carolina must attract more small and emerging growth businesses if its economy is to prosper. But that takes capital, and South Carolina is a capital-poor state. One solution might be a Development Bank.

Jan Collins Stucker

D. Allen Thames

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B&E REVIEW: In a recent issue of **Palmetto Banker,** *you said the majority of future jobs created in South Carolina will be in small businesses, not large industries. Can you expand on that?*

THAMES: A study conducted by the Massachusetts Institute of Technology in 1979 found that small businesses (those employing fewer than 250 people) create two-thirds of all new jobs in the United States. The figures are similar for South Carolina. In 1980, 60.2 percent of all workers in the state were employed in firms with fewer than 250 workers, according to a study by Richard B. Robinson, Jr. of The University of South Carolina's College of Business Administration. That percentage is expected to increase throughout the 1980's and into the 1990's.

B&E REVIEW: Does the state's future economic health depend on its ability to attract small and emerging growth businesses? And does this, in turn, depend on whether South Carolina has enough capital?

THAMES: Yes, to both questions. The state must have capital to attract small businesses. But South Carolina is a capital-poor state. With an annual per capita income in 1982 of only $8,468, South Carolina ranked 49th in the nation. The problem is that commercial banks alone can't fill the capital gap in South Carolina, because new, small businesses usually need relatively small loans (less than $2 million). They also want long-term loans, but commercial banks usually want such loans repaid in three to five years.

B&E REVIEW: How about investment bankers? Can they fill the void?

THAMES: Investment banks, such as E.F. Hutton, Merrill Lynch, and Robinson-Humphrey charge a fee to raise equity and debt capital, so if less than $2 million is

"The concept is similar to that of the World Bank that helps developing countries."

needed, the services of investment bankers usually don't make economic sense for the small business.

B&E REVIEW: What, if any, solution is there?
THAMES: A Development Bank for South Carolina. A Development Bank is an institution that would help import capital into the state and would specialize in providing equity and debt to small and emerging businesses in the state. It would also help develop a specialized body of knowledge that would focus in on the needs of these businesses.

B&E REVIEW: Is the concept of a Development Bank new, or has it been tried before — in, for example, third world countries?
THAMES: The concept is similar to that of the World Bank that helps developing countries. We also have some domestic examples. In Massachusetts, several insurance companies have gotten together and formed a development bank for small businesses and growth companies in that state. Kansas, too, launched a similar bank in 1965.

B&E REVIEW: How would a Development Bank be financed?
THAMES: It would need an initial infusion of capital that could come from a variety of places. In other states, sources have included existing banking institutions, savings and loans, insurance and casualty companies, public utilities, and corporations. With the leveraging features of existing federal government programs, such as the Small Business Administration, an initial capitalization of between $10 million and $15 million could generate loans and investments of between $100 million and $150 million.

The initial capitalization doesn't have to be brought together all at one time. It can be phased in over a 6-18-month period. But I think you would need a $10 million to $15 million initial capitalization level to attract the kind of management and personnel that would make a Development Bank successful. We would need to look for top management, i.e., fairly highly compensated individuals with extensive experience, aggressiveness, and an interest in the state.

B&E REVIEW: Would state government play a role in this?
THAMES: A Development Bank should be a partnership between the public and private sectors. This does not mean state government needs to provide any money. I don't see the need for any additional tax money to be spent in this area. It's simply a matter of making a commitment and refocusing some already existing programs. For example, the state could provide consulting services, feasibility studies, loan packaging, and technical assistance, since state and federal funds are already available for many of these activities. The state could also consider legislation that would render any income or dividends from the Development Bank investment exempt from state income tax. A state tax credit could be considered for capital stockholders against loss for a certain period, say, the first five years of operation.

B&E REVIEW: What type of businesses would benefit from a Development Bank?
THAMES: Let's say you are a credit-worthy individual or group of individuals who want to open a printing company. Your capital needs are $800,000. You need $500,000 for the building and for printing equipment. You need another $200,000 for inventory and $100,000 for operating needs. You want long-term (10 or 15 years) financing for the building and printing part of the

operation, but a commercial bank that could provide that kind of fixed-rate capital would want the loan repaid much sooner than that. So this is where a Development Bank comes in — to provide fixed-rate, 15-year fixed-access financing for you. Then you could easily find commercial banks that would lend you the rest of the money you need for operations and inventory.

B&E REVIEW: Last year, the S.C. General Assembly created the Jobs Economic Development Authority (JEDA), a state agency designed to help small businesses get financing. Would a Development Bank duplicate what JEDA is trying to do?

THAMES: Not in my opinion. Last year, JEDA was considered a competing idea by some, but I never thought so. For one thing, JEDA is funded completely through the federal Community Development Block Grant Program; it has no private funding, as a Development Bank would. Also, the authority has a cap of $250,000 on loans; a Development Bank would not. If there's a desire, I see no reason why JEDA and a Development Bank couldn't work together.

[Editor's Note: Elliott E. Franks III, Acting Director of JEDA, agrees that the public and private sectors could "join hands" to form a Development Bank. In fact, says Franks, under the state legislation that created JEDA, a Development Bank could be set up as one of JEDA's subsidiaries. Currently, says Franks, the only funding available to JEDA is from federal sources, but the agency is pursuing private funding, as well. As for the $250,000 cap on JEDA loans, that is not legislatively mandated, but is set by the JEDA directors according to the amount of money available at the time. Thus, the cap could be increased or decreased.]

B&E REVIEW: What kind of reaction, if any, have you gotten from local bankers about your Development Bank idea?

THAMES: In general, it's been favorable. Those people within the banking system who have the responsibility for reviewing the credit for borrowers have been the most enthusiastic about the idea. They have seen a number of worthwhile projects and ideas turned down because of the bank's inability to provide long-term, fixed rate financing. Also, it would be to a commercial bank's advantage to give some of its money to help capitalize a Development Bank, because the latter would help import capital into South Carolina. Let's say, for example, that a training company needs $500,000 for fixed asset financing. Of that amount, 90 percent will be imported from outside South Carolina. The Development Bank is required by the Small Business Administration to have at least 10 percent of this money at risk. The rest — $450,000 — can be sold off to insurance companies, pension funds, or whatever as a 100 percent government guaranteed investment. We've used $50,000 in state money and $450,000 in imported money. That money will then be deposited by the borrower into the commercial bank of his choice, so we've enhanced the deposit base in South Carolina. And that, in effect, brings new customers to the commercial banks.

B&E REVIEW: Are there any long-term benefits of Development Bank involvement for commercial banks?

THAMES: Yes. Capital formation means individuals will be hired; new payrolls, supplies, and services will be added; and new automobiles and homes will be bought because of the new payrolls. Everyone, including banks, benefits from this.

B&E REVIEW: INC. magazine recently ranked South Carolina 50th in the nation in terms of capital available to small and emerging growth businesses. Do you think a Development Bank would help change that ranking?

THAMES: Yes, I do. The Development Bank idea addresses the specific problem *INC.* pointed out as being a weakness in South Carolina's efforts relative to its sister states. We tend to think of venture capitalists as being primarily interested in high technology enterprises or genetic engineering projects. And while it is true that some venture capitalists are looking at those kinds of

"A Development Bank should be a partnership between the public and private sectors. This does not mean state government needs to provide any money. I don't see the need for any additional tax money to be spent in this area."

endeavors, a number are also looking at "everyday" type businesses. I'm aware of one, for example, who finances rental furniture, retailing that hardly fits into a "high tech" or genetic engineering type of enterprise!

What will happen is that a Development Bank will build a specialized body of knowledge about the needs of small businesses and emerging growth businesses and how they can be financed. That knowledge then can be shared with everyone in the financial community, and, from time to time, there could be a pooling of industrial revenue bonds as another source of financing.

B&E REVIEW: If a Development Bank is such a good idea, why haven't more states tried it?
THAMES: Because most state governments have expected the federal level to be responsive to major economic trends. But you can find in books such as *The Third Wave* by Alvin Toffler that today the era of economic industrialization is becoming one where the emphasis is on decentralization. The computer is bringing capabilities to individuals and state government that didn't exist 5 or 10 years ago. My judgment is you're going to see more decentralization, and more states involved in economic strategies.

B&E REVIEW: What kind of response have you gotten from small business people regarding the Development Bank idea — from the kind of people who might benefit from such an entity?
THAMES: The response has been substantial and overwhelmingly positive. These small business people understand clearly the need for this kind of capital formation and for the availability of both equity and debt to expand their businesses as well as to start new enterprises.

B&E REVIEW: Do they want it sooner rather than later?
THAMES: They wanted it last year and the year before that! □

Leasing Versus Buying: A Trend for the '80's

Most companies needing new equipment still buy, but an increasing number of firms are turning to leasing. It's a form of financing that has been ignored until recently, despite its budgeting and tax advantages.

Gary M. McCall

For several years, the "new" industrialization of the South has been a hot topic, generating thousands of articles about its impact on the workplace, employment, and future profits. My interest, however, is not in the magic of robotics or the microefficiency of the new air jet looms, but, rather, in the financing of these retooling efforts. How will the credit needs of these companies be met?

Without question conventional financing still dominates the industry. Many companies, however, are turning to leasing — a form of financing that has been a stepchild for years despite its budgeting and tax advantages and its safeguards against equipment obsolescence.

Leasing industry figures show that a full 30 percent of all new capital equipment expenditures today are financed through leasing. In addition, equipment leasing volume for 1982 totaled $57 billion, an increase of 19 percent over the previous year. Without question, this kind of volume firmly positions equipment leasing as one of the key financing tools of the new industrialization.

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Wide Range

In South Carolina, leasing is being used to finance a wide range of equipment — from copiers to open endspinning frames to computer-aided architectural drafting equipment to the roll carts now employed by many cities to collect residential garbage. It's a diverse field that has captured the financing imagination of both the public and private sectors because of its flexibility, tax advantages, and ability to fend off obsolescence in a rapidly changing world.

As John C. Deane, Chairman of Great Western Leasing, said, leasing puts "another arrow in the businessman's financial quiver." Equipment leasing is not a new concept; it originated about a thousand years before the birth of Jesus Christ, when the Phoenicians leased their merchant ships. Closer to home, United States railroads leased their rolling stock in the late 19th century. The concept did not really gain favor, however, until World War II, when the war economy forced many companies to lease equipment instead of buying it.

In 1962, Congress created the investment tax credit to encourage spending on plant equipment, then sweetened the deal in 1981 by increasing the investment tax credit and enacting the accelerated cost recovery system of depreciation. This legislation, sometimes called the "Lessors' Bill of Rights," was designed to stimulate capital spending by dangling an investment tax credit of up to 10 percent for equipment.

In addition, the law was changed to allow partial credit per year when a lease was terminated early, providing additional flexibility to lease financing. These changes have been a tremendous boon to leasing. Robert H. Damm, Senior Vice-President for Marketing at Greyhound Leasing and Financial Corp., said, "Ten years ago, when I called on people, they'd say, 'Sorry, we don't lease, period.' Now they listen, and they want to know about our products."

Today, American business is served by more than 1,000 leasing companies, including independents, banks, and firms (called "manufacturer captives") that manufacture equipment, then lease rather than sell it. This variety occasionally makes for strange bedfollows. Citicorp, for instance, owns the second largest fleet of airplanes in the world, because of its widespread leasing activities.

But no matter how they are configured, most leases do the same thing: they allow the owner of an asset to make it available for use by someone else, for a specified length of time, at a specified rent. When the contract ends, the user may have a choice of renewing the lease, buying the equipment, or returning it to the leasing firm.

"Equipment leasing is not a new concept; it originated about a thousand years before the birth of Jesus Christ, when the Phoenicians leased their merchant ships."

Risks and Benefits

The leasing company takes credit and financial risks, and lives with the possibility the equipment could decline in value during the lease term. In return, the leasing company receives certain monetary benefits: interest, tax incentives, or a higher than expected residual value.

As for the lessee, he gets the use of productive equipment without the risks of ownership. In fact, the price of the lease often includes the shipping and installation fee.

One reason for the popularity of leasing today is the changing attitude of business toward ownership. With equipment more expensive and inflation always a specter, it's clear that it is the use, not the ownership, of equipment that produces the profit. Since many leases are a form of off-balance sheet financing, a company's return on assets is higher than if the lease were capitalized as an asset. Many businessmen are finding it is simply more profitable to use working capital for other portions of their business, whether it's for additional employees, productivity improvements, sales promotion, marketing, product research, or expansion.

At the same time, many companies fear computers and highly technical equipment simply will become obsolete too fast to be profitable. Leasing increases a company's flexibility and ability to upgrade its equipment as the market changes. This is especially true of computer-related equipment in both the public and private sectors. In fact, a survey of the nation's top 500 companies indicates that of the 64 percent that leased equipment during the previous two years, 53 percent were using leasing as a hedge against technical obsolescence. Another 30 percent cited tax considerations, while 27 percent mentioned off-balance sheet financing.

For example, some major manufacturers depend on a master lease as a line of credit against which it can draw to obtain new equipment. The lease term is usually five years, but a company rarely keeps any computer that long. Instead, when the firm turns in its old computer for a newer model, the lease is simply restructured, adding the balance due on the old, minus the credit the company gets for the old computer's trade-in value. This keeps the company on the cutting edge of technology without the headaches of purchasing new equipment and disposing of the old.

More Affordable Today

Many companies also have turned to leasing because of its increased affordability. Certain types of equipment, such as medical scanners and specialized dental tools, are simply beyond the financial reach of many. Leasing allows them to use this high-priced equipment without making a large capital outlay, substituting instead a regular payment that frequently is tailored to the cash flow of the customer. Since most leases are for 100 percent, many companies can make better use of their scarce cash that otherwise would have gone into a down payment of 20 percent or more if conventional financing had been used.

In addition, leasing also offers fixed payment rates (a valuable tool in times of rampant inflation), longer terms (thus lower payments), and cheaper money. Because the leasing company usually retains the investment tax credit, rates often are lower. In a recent case, a South Carolina textile firm was able to obtain leasing terms equal to a seven-year, fixed-rate loan at 6½ percent. That specialized, multimillion dollar heavy equipment lease was designed around the needs of the company and its financial situation. It's one of the reasons some people say leasing is like "financial silly putty. You can make it go here, you can make it go there. You can do anything with it."

Leasing also becomes an additional source of debt financing, allowing the equipment to "pay for itself," as it saves money. When money is tight, particularly when interest rates are high enough to lure funds out of the stock market into money market funds, leasing gives companies an additional source of capital. It depends

"One reason for the popularity of leasing today is the changing attitude of business toward ownership. With equipment more expensive and inflation always a specter, it's clear that it is the use, not the ownership, of equipment that produces the profit."

entirely on the corporation and its needs, including the company's financial status, its concerns about changing technology, its capital budget, and its desire to have an option to buy.

With a purchase, a company creates a depreciation expense, a tax deductible investment credit, and an asset it can later sell. But a purchase also depletes working capital that could have been used for expansion, reduces credit lines, and eats into cash flow.

In general, if a company can make purchases from its own internally generated funds, it should look hard at purchasing. But, if the ability to buy is marginal or a borderline case, the firm should take the money it could have used for an outright purchase and invest it to cover the incremental cost of financing that piece of equipment, still maintaining its operating reserves for the future.

No Longer Shunned

At one time, leasing was shunned by many companies because it was a sign of financial weakness or it produced a sloppy balance sheet. Today, that attitude has largely changed. Most companies are now more interested in the savings, and many find that leasing actually simplifies bookkeeping. There is only one monthly payment and no need to keep a record of depreciation and interest. Usually, lease payments are treated as a fully tax deductible business expense. Anyway, in most cases, the obligation to pay rent is recorded as an expense rather than a liability.

There are some predictions that leasing's popularity will continue to grow throughout this century, eventually affecting a majority of all capital equipment purchases. This level would be attainable only if the tax laws remain unchanged or improve. It is clear, however, that companies, large and small, that once shunned leasing are now taking a hard look at this alternative form of financing. And major firms, interested in the retooling of their companies, often are talking to both the leasing and the credit sides of the bank before making a final decision. □

BUSINESS & ECONOMIC REVIEW

Tax Strategies for the '80's

James Edmunds Wilson

A Fast-Growing 'Perk' for Executive Employees

One of the fastest-growing perquisities of both larger corporations and closely-held enterprises is personal financial planning advisory services for key, executive-level employees. According to one recent survey, this perquisite is being used by corporate entities as much as deferred compensation.

Why this popularity? Because valuable executives may be paid handsomely for their services, but making money and making money grow are, too often, mutually exclusive skills. Many corporate managers are adept at solving their company's financial problems, but less than competent at managing their own personal financial lives. The ever-increasing complexity of day-to-day corporate financial decisions leaves hard-working executives little time to devote to their own financial care. As a result, their personal finances suffer.

The whole framework of financial planning for the corporate executive or closely-held business owner must be aimed at maximizing the deployment of his or her earnings and assets in order to build net worth. This sometimes entails a rather aggressive posture overall, since the executive usually has few assets not associated with the business. (The executive may have a relatively high income, but little in the way of *investment* assets.) Likewise, closely-held business owners may have the significant portion of their net worth represented by their equity ownership position in the business. This is equally dangerous from a financial planning perspective. A realistic view of one's personal financial resources and capabilities is a must if the financial planning process is to be effective.

Action, Not Reaction

It is easy to fall into the trap of reacting to one's personal financial life rather than acting on a predetermined format. Establishing specific guidelines and parameters by which to evaluate investments that will enable you to reach your overall objectives is the focal point of personal financial planning.

Numerous other facets are a part of the process, too, however. Among them are determining how to fund specific objectives, such as children's college educations, in a tax-wise manner; using trusts as planning vehicles; reviewing estate requirements; reducing income tax liability; determining retirement planning alternatives; and managing money on a day to day basis. Often one of the more difficult realities to accept is the presence of risk inherent in one's existing position or ownership. The company *can* go out of business or be sold or otherwise transferred to different hands.

Too many corporate executives and business owners also have a less than adequate understanding of their various fringe benefits and the tax effects of these benefits.

Some fringe benefits, such as medical insurance, may be completely tax free (i.e., deductible by the corporation and not included in the recipients' income for tax purposes).

Others are taxed to the executive, such as company paid vacations (not to be confused with vacation time). In this case, however, you have received a vacation for the cost of paying the tax instead of paying the entire cost with after-tax disposable dollars. (By the way, financial planning counseling fits into the latter category in terms of treatment as a fringe benefit. The value of the counseling services is taxed as income, but the portion of the services constituting investment or tax advice is deductible.) Fully comprehending the effect of deferred compensation or retirement benefits is also a part of the financial planning process — particularly where incentive stock options or similar vehicles are utilized. A well-planned strategy for exercising options is required.

Common Financial Blunders

A major problem is the lack of a *sensible, multiyear plan for reducing income tax liability*. It is important to realize the advisability of building up at least some conventional, easily converted, fairly liquid assets prior to embarking on tax shelter investments. Moreover, sheltering income down to the lowest marginal tax bracket greatly increases one's exposure to risk. A more orderly, planned reduction of liability usually is better.

Misallocation of assets is another common problem. There is a tendency to accumulate investment assets and insurance policies without any overriding purpose. The result is a hodge podge that makes little or no sense. However easily one acquired these assets, he or she can't usually withdraw from them without both economic and tax consequences.

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Many executives' first real contact with the investment world is through purchasing individual common stocks. They have been hearing about the stock market from friends and business associates for years. Everyone they know makes money there. (The losers never talk.) Consequently, the executive picks up his phone, calls his friendly broker, and purchases a couple of stocks the broker recommends. This process may be repeated several times until he has a group of stocks that may not provide enough diversification to encompass the investment risk properly. Moreover, he is probably misallocating these assets in terms of their risk/reward ratios. That is, an individual investor owning a few stocks in a market dominated by institutions, in my opinion, is usually in quite an untenable position.

A general lack of understanding of the reasons for various kinds of insurance is also a common problem. As with personal investments, an accumulation of various policies and types of coverage is typical, especially by middle age. An objective review and updating of exactly what is in force and what its costs and benefits are can be invaluable to the executive and his or her family.

Finally, a major purpose of personal financial planning counseling for corporate executives and business owners is *not only to provide solutions for existing financial problems (such as those mentioned above) but also to forestall potential problems.* Creating a framework to anticipate financial obstacles before they arise, instead of merely reacting to them after the fact, increases your chances of becoming financially independent and secure. □

BUSINESS & ECONOMIC REVIEW

Information Technology Trends

John W. Moore

Spread Thin? Try an Electronic Spreadsheet

It is nearly impossible to read any magazine or newspaper today without being overexposed to advertising for computers for managers, professionals, and executives. Much of this is targeted to those people who must analyze, communicate, and make decisions based on financial or accounting results, and who therefore spend considerable time and effort producing and analyzing numeric data, as well as presenting it to others for consideration. One of the most useful tools for this type of professional is the "electronic spreadsheet" program that runs on a microcomputer.

The first electronic spreadsheet, VisiCalc, appeared in October 1977. Since then, at least 50 other versions have come on the market to take advantage of the demand for this type of program. Sales of spreadsheets probably rank second only to traditional accounting programs (general ledger, payroll, and inventory). For example, 400,000 copies of VisiCalc have been sold, and sales of Lotus 1-2-3, one of the second generation spreadsheets, have made Lotus a bestseller.

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Many Advantages

The electronic spreadsheet is a computer driven "page" meant to replace the 14-column pad all accountants and financial analysts grew up with before the computer. It is larger in size than the pad, able to calculate rapidly, reusable, and can cut turnaround time and do away with clerical typing of computations. For one-shot jobs, the setup time (to lay out the problem, the column headings, and the text) may or may not be less, but for recurring jobs (such as annual budgets, or income statements), the setup, which is a template (reusable format), can be reused or modified any number of times. Each reuse, of course, eliminates setup time. Also, few of these type problems are solved correctly the first time (such as annual departmental budgets), and each change normally requires recomputation and retyping. Spreadsheets can cut much of the time off this process, since the problem as it appears on the computer screen can be printed in acceptable quality print, eliminating clerical typing time. For people such as accountants, who must travel to clients' offices, a portable computer and a spreadsheet program can boost productivity substantially.

As with a lot of new products, many potential users have a phobia about computers and computer programs. Spreadsheets are designed as tools for the analytical worker, and must be thought of only as a tool. They will not solve problems that humans cannot set up or solve. However, they can analyze numeric data far faster (with a large reduction in the risks of clerical error) than the most proficient human or calculator.

Easy to Use

Spreadsheets require no more computer literacy then the ability to turn on a machine and insert the program diskette into a disk drive. No programming or operating experience is necessary. What helps, however, is the patience to sit down for a couple of hours with the spreadsheet program, manual, and computer, and work through the tutorial (example problems that demonstrate how to use the spreadsheet) the vendor provides as documentation. This initial session is generally enough for the user to get a feel for the program's capabilities, and to be comfortable with its concept and use. As with any sophisticated tool, both proficiency and insight into more uses for the spreadsheet will be possible with practice.

Generally, spreadsheets are for analytical work, such as accounting and financial management. A very few of their uses are described below.

- For automating various journals and ledgers in a small accounting system. But — they are not strong enough yet to build an entire accounting system on because of size constraints.
- For modeling a business on. Entry of previous periods' income statements allows you to simulate any number of forecast changes, such as general pay increase's effect on net income.
- For testing proposals on, such as a new business venture.
- For performing pro forma tax planning.
- For building a business plan.
- For analyzing financial ratios.

- For creating graphs and charts illustrating the numeric results obtained on the spreadsheets.
- For writing text to explain financial models or graphics.
- For communicating with other computers, such as reaching an external database for a piece of data needed in your computations.
- For sorting data files.
- For producing custom or standard reports.
- For computing statistics.
- For forecasting.
- For performing investment analyses.

Before You Buy

All spreadsheets are useful and powerful tools, and any spreadsheet can be a vast improvement over manual methods. Several things influence which of the more than 50 different brands of spreadsheets you can buy.

- Your computer: not all spreadsheets run on all computers.
- Your computer's memory size. The newest generation ("integrated software") requires substantial memory, up to 256 k, to load the program. Each one specifies its requirements.
- Intended use: if you need graphic capability, multiple pages, help menus, external communications to other computers, or goal-oriented analysis, your search will be narrowed somewhat.
- Ease of use: there is a substantial range of sophistication in the possible uses of spreadsheets. Some are harder to learn than others, but the increased power may be worth it.
- Your budget: this is not a serious problem, as the range of prices goes from under $100 to about $700 for the vast majority of spreadsheets. For planning, figure about $500.
- Your needs: take one of your favorite headaches to a few different stores and try the same problem on different spreadsheet programs.
- Speed: there are differences in computing speeds and loading speeds among programs (and machines).

Spreadsheets are available at local computer stores and by mail order. Almost every computer magazine at local newsstands carries articles or tests about spreadsheets, as well as vendors' advertising for these programs. □

BUSINESS & ECONOMIC REVIEW

Economics Corner

Lynda McDonnell

Utilizing a Company Economist

Warm-up wit is still nearly mandatory for business speakers. In recent years, a favorite butt of jokes on the chicken-and-sherbet circuit has been the soul who analyzes, forecasts, and prescribes policy for the economy. There's one about the need for one-armed economists who presumably would be incapable of saying "On the other hand . . ." "If you lined up all the economists end to end, they wouldn't reach a conclusion . . . they would point in all directions . . . it would be a good thing." In general, the humor is to portray the economists as a contentious lot who can't make up their minds or who, when they do swallow hard and make forecasts, frequently are wrong.

For economists, being the straight man is no laughing matter. In the back-to-back recessions of 1980-'82, many firms cut or eliminated economic departments. By late 1982, according to the National Association of Business Economists, at least 10 major firms had closed or severely pruned their economics departments. The association's membership, which grew from 700 in 1970 to 4,000 by 1981, has stagnated since. Although there is no evidence that cost cutting was more severe among business economists than of the economists who remain employed by business.

Loss of Credibility

A. Nicholas Filippello, Monsanto's Chief Economist and new President of the National Association of Business Economists, worries that his profession suffered a serious loss of credibility when forecasts for economic recovery in 1982 were resoundingly wrong. For much of the 1960's and 1970's, he believes, business executives "thought we could do more than we could." "In 1982," he continues, "they found out we don't walk on water. His worries are shared by Christopher Snyder, Group Vice-President of Data Resources, Inc., a major econometric forecasting firm in Lexington, Massachusetts. Snyder remarks, "Business people have a habit of trusting you once and if you blow it, you pay the price."

Of course, business people themselves often make mistakes and even admit to some of them. The problem between economists and business people may be less the latter's unwillingness to forgive than executive's uncertainty about how to employ economists and economists' uncertainty about how to be helpful to business.

Enough Blame to Go Around

Blame can be apportioned on both sides. Economists surely rank among the world's worst communicators, preferring technical language bearing little resemblance to English, writing in what economist Paul McCracken calls "laboriously mathematical terms — often unnecessarily so," and working for the approval of a small group of peers rather than to inform a larger audience. Economists often forget how difficult basic concepts can be to learn and have little patience for teaching others in clear, concise terms. McCracken, Professor at the University of Michigan's business school and Chairman of the Council of Economic Advisors during the Nixon Administration, recalls his interview with President Eisenhower for a seat on the council. "People around here know that I don't like long memos, nothing that goes into a second page," Eisenhower told McCracken with a grin, "but I've almost decided that's impossible for economists."

Robert Kavesh, Professor of Economics at New York University, believes that with the proliferation of forecasting firms, mathematical models, and business economists in the 1970's, "we became too enamored of our methodology and technique. We ceased to know what was really going on in the company." Research by Gerald Bongard, Chief Economist for Pacific Telephone in San Francisco, confirms Kavesh's view. As part of his Ph.D. thesis, Bongard interviewed 40 chief executives about business economists. Their usual complaint was that economists didn't know enough about the companies they worked for to explain what trends in the economy meant for those companies.

Few economists earn their Ph.D.'s with the idea of going into business to entertain banks' corporate customers with pithy analysis, or to worry about demographics and production schedules for industrial firms. In fact, despite their concern with theories of industries and firms, economists suffer something of a bias against the world of widgets and bottom lines. Nobel laureate and University of Chicago Professor and Economist George Stigler has written, "I do not recall ever hearing or giving

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a lecture on the Nobility of Pure Scholarship contrasted with the Sordidness of Commercial Applications, and, yet, in innumerable instances I have seen young economists spurn handsome positions in business for devotion to an academic life in which often they will not prosper greatly. Somehow, by a mysterious intellectual osmosis, they absorb the values of the professional academic economist." The bias sometimes exists even within universities, where members of Economics Departments sometimes view business school economists as worldly apostates.

Much to Learn

Professional prejudice and theoretical training leaves the economist who joins a business much to learn. For example, an economist who works for General Motors had better know about used car sales and prices as well as the state of the economy, interest rates, and monetary policy. The economist must also learn the limits of mathematical models. Mathematical models are extremely useful for answering certain questions, in part because they simplify the world greatly and include a limited number of factors. If the economist tried to specify everything, his model could give no clear conclusions. But the models leave out such unquantifiable forces as personality and power. Any economist who forecasts interest rates had better recognize that there are things Paul Volcker can do by dint of personality that his predecessors at the Federal Reserve could not. And an economist who thrives in the business world recognizes quickly that differences in executive style will affect the way companies behave.

Economists also have to learn that businesses often must rely on imperfect information to make quick decisions. It does no good to build a full-blown model of a new market if the information arrives six months late. And while economists may qualify their advice, they can't hedge it so much the chief executive starts dreaming wistfully about a one-armed economist. McCracken says:

> The economist going into business ought to understand that decisions must be made about the future. If he's going to be useful, he's got to put his guess on the line. The chief executive wants to know if this is a good time to borrow money. An economist is better off to say "yes" or "no" than to be waffling or wobbling at the issue. The CEO will be more benevolent to someone who gives an answer that is not quite right than to someone who can't give an answer.

On the other hand, economists have some reason to feel like the Rodney Dangerfields of the business world. NYU's Kavesh contends that in many firms, the economist has been a sort of corporate mascot who "made large organizations feel they were living in the 20th century, that they were modern." It is not uncommon to hear business economists complain that their role is unclear and that they have little influence on corporate decisions.

The executive who believes the jokes and dismisses economists as contentious eggheads denies himself both information and a way of thinking that is useful to the problems business faces.

Public Images

The public image of economists is certainly one of vehement internal disagreement. Yet many of the differences among economists stem from differences in values rather than analysis. Milton Friedman has a far more libertarian view of government's role in society than does John Kenneth Galbraith. So it's hardly surprising that Friedman prescribes a simple rule for managing the money supply that would constrict the Federal Reserve's power. Nor is it surprising that Galbraith disagrees with him. Moreover, some of the differences between economists' views are exaggerated in the press for the sake of having clear-cut antagonists.

On analytical questions, the economics profession often has a remarkable level of agreement. In an *American Economic Review* survey of economists, only 2 percent disagreed with the statement, "A ceiling on rents reduces the quantity and quality of housing available." Only 3 percent disagree with "Tariffs and import quotas reduce general economic welfare."

And while the hedges and caveats of economists may exasperate impatient executives, they often are simply honest expressions of uncertainty. How long will the recovery continue? It all depends on interest rates, the economist will answer, and he has learned from unpleasant experience in the last few years how risky interest rate forecasting can be. While mathematical models, economic theory, and informed judgments provide a good deal of information about the economy, they all fall far short of perfection.

What a good economist brings to business is an ability to build bridges between general economic trends and a company's business as well as a way of thinking that is broader and more skeptical than that of many

business school graduates. An economist for a major Pennsylvania bank reports that in discussions over whether to acquire a bank in a nearby town, the MBAs focused on the bank's impressive financial record. The economist prodded them to look at the bank's market, which was growing only slowly, a fact that made the acquisition less attractive.

Economist and journalist Leonard Silk describes the economist as "a good handyman whose habits of thinking are useful for attacking new problems." Those habits, according to Silk, stem from:

> quasi-Talmudic training — which is long on discussion and debate, with continuous passage from the specific to the general and back again — savagely close in its textual criticism — skeptical about its own or anyone else's results — complicated and wide-ranging in its style of inquiry.

It's hardly surprising that when employed well, a good economist can tackle such diverse tasks as building a mathematical model to assessing how much a retailing chain could spend to advertise tires to writing testimony opposing usury laws and advising the chief executive on whether to support Paul Volcker's reappointment.

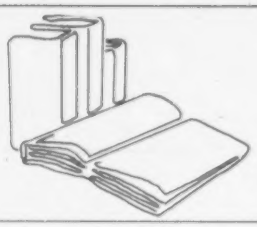
Advice for Executives

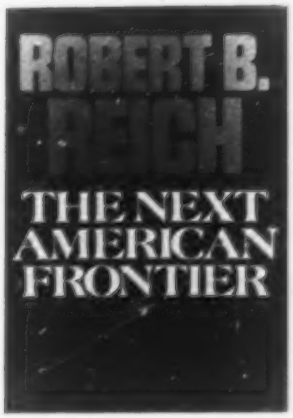
The advice for business executives who employ economists is simple. If you hire an economist, make sure he or she is integrated into critical activities and committees so that, as McCracken says, the person is "not always on the outside knocking on a door hoping that someone will open it." For the same reason, make sure the economist reports to a senior officer to ensure that you attract a good economist and that his advice is actually considered.

William C. Wood, Associate Professor of Economics at the University of Virginia, offers other sound and simple advice. When dealing with economists, be aware of the factors that may be left out of their models. Distinguish between advice that is the product of analysis and advice that is the product of value judgments. Expect to be surprised by the high degree of consensus among economists on many issues. While demanding straightforward recommendations, listen closely to the qualifications that accompany them. Finally, insist that the economist be a good communicator, one who understands your business and who can speak without hiding behind the jargon of his profession. □

BUSINESS & ECONOMIC REVIEW

Books





The Next American Frontier

By Robert B. Reich
Times Books, 1983, $16.60

The reviewer, **Sena Hoosenally Black**, is a Research Associate with the Institute of Information Management, Technology and Policy of The University of South Carolina's College of Business Administration. She specializes in policy and management issues related to the information society.

> The central theme of this book is that in the emerging era of productivity, social justice is not incompatible with economic growth, but essential to it . . .
>
> America . . . can adapt itself to new economic realities by altering its organizations . . . Failure to adapt will rend the social fabric irreparably. Adaptation is America's next frontier.

And that frontier, argues Robert Reich, who teaches at Harvard University's John F. Kennedy School of Government, is the challenge of adapting to an era of maximizing human, not financial, capital. In the past, America's social values have been unnecessarily posed in opposition to its economic values, creating a tension between the two. The real choice, he argues, is not between these value systems but among the realities of international competition.

Specifically, Reich criticizes the dominance of an era of management practices that have devised ever more elaborate systems of control to increase productivity in industry. This era of managerial control, by what he terms "paper entrepreneurs," has led to the development of organizations for high volume, standardized production. But it is precisely these standardized production techniques that can and are being readily duplicated overseas and which will create intense global competition. The solution, argues Reich, lies in redirecting our efforts toward "flexible system production" which depends less on rigid management-centered organizations and more on the development of human capital. A second solution, he says, is to concentrate on new industries based on advanced and emerging technologies.

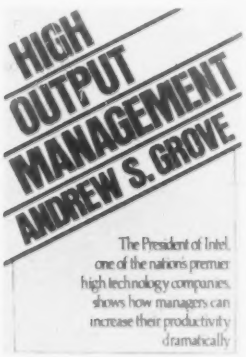
The Next American Frontier has emerged as a major statement for proponents of a national "industrial policy," as well as a highly controversial book in academic and business circles. This book incorporates two related themes, one of which has been largely ignored in most discussions, and the second which has often been misinterpreted.

In the first theme, Reich argues that America's creative energies should be invested in people, not procedures; that business and government are in pursuit of a common goal and are not in conflict with each other; and that economic policy must be linked to social policy for future prosperity. To achieve this goal, Reich foresees a role for government in assisting business to modernize, not by subsidies, but by a contractual commitment to upgrade labor and capital. Because of this liberal ideology, this book has become a political statement, espoused by liberal Democrats and rejected by conservative Republicans.

In a second theme, Reich suggests that a national industrial policy be formulated (not through centralized planning but "through the messy process of political debate and choice") by encouraging new and emerging industries based on advanced technologies. Reich has often been misinterpreted as suggesting that traditional smokestack industries should be abandoned in favor of emerging "high tech" industries, an observation that is not altogether correct. What Reich does suggest is that traditional industries must adapt to flexible systems production by incorporating advanced technologies if they are to remain internationally competitive, and that America's advantage in technology-based industries should be encouraged as a priority of national policy. Recent developments in, for example, the textile and automobile industries support Reich's argument, and there is little doubt that technology-based industries have demonstrated remarkable growth.

This book does have some shortcomings. It is unnecessarily long for the audience for which it is intended (opinion leaders) and not sufficiently focused in its discussion of a national industrial policy. Despite these negative features, however, *The Next*

American Frontier has emerged as a standard bearer for the industrial policy debate. A carefully crafted statement of the key issues facing the American economy, this book deserves to be read and evaluated by all who have an interest in America's economic future, regardless of political persuasion. □


HIGH
OUTPUT
MANAGEMENT
ANDREW S. GROVE
The President of Intel, one of the nation's premier high technology companies, shows how managers can increase their productivity dramatically

High Output Management

By Andrew S. Grove
Random House, 1983, $16.95
(A Fortune Book Club Selection)

The reviewer, **Gregory G. Dess,** is an Assistant Professor in the Department of Management at the University of South Carolina's College of Business Administration.

This widely-acclaimed book by Andrew S. Grove, President of Intel Corporation, has recently appeared on nonfiction best seller lists and become a *Fortune* Book Club selection. Perhaps part of the reason for its success is that it (as claimed by the publisher) is one of only a few of last year's many management books written by a top-level manager. Thus, Grove combines his reasonably well-read background in management literature with his experience as one of the founders and top executives of a billion-dollar corporation.

In *High Output Management,* largely the outcome of an in-house management development course Grove designed, three basic ideas are covered in 15 chapters. First, Grove uses an *output approach,* in which many of the principles of manufacturing are applied to the work of managers, to improve productivity. Using personal examples from Intel and a hypothetical "breakfast factory," Grove illustrates the applicability of such concepts as the "limiting step (i.e., the bottleneck) in a production operation," the deployment of resources for capital equipment versus inventory, and value added to *all* key functional areas within an enterprise.

Second, he puts forth the idea that most forms of human activity are completed by teams, not individuals. He considers the most important sentence of his book to be, "The output of a manager *is* the output of the organizational units under his supervision or influence. Grove introduces the concept of *managerial leverage* — the impact of what managers do to increase the output of their teams. "High managerial productivity," he says, "depends largely on choosing to perform tasks that possess high leverage." High leverage activities are those that (1) affect the work of many people (e.g., a staff or orientation meeting), (2) increase a person's output over an extended time period (e.g., a performance appraisal), and (3) disseminate important information to many people (e.g., a lecture).

Third, Grove believes a team (or organization) will "perform well only if peak performance is elicited from the individuals in it." Here, he uses "sport analogy" and "task relevant feedback" as a means of motivating employees to sustain a high level of performance. He gives as an example how all three maintenance teams at Intel improved when competition was introduced. "People did not get more money or other rewards," he asserts. "What they did get was a race track, an arena of competition."

Grove concludes his book with a plea for today's managers to complete at least a half-dozen of 25 suggested activities. Among these are

- identifying the limiting step of a project and mapping out the flow of work around it;
- conducting work simplification on your most tedious, time-consuming task, eliminating at least 30 percent of the steps involved; and
- establishing a race track, i.e., defining a set of performance indicators for your subordinate.

Andrew Grove is quite successful in attaining his objective of presenting a "good, solid management approach." The reader is exposed to the ideas of an eminently successful executive in a forthright manner. The book is very readable, and technical jargon is virtually nonexistent.

Many of Grove's ideas, despite their relevance, however, are not highly original. For example, much of his emphasis on sport analogy is little more than an organizational application of the principles of "goal setting." Many experiments in actual organizations have indicated that groups of individuals perform better when specific goals are set (as opposed to "do your best" goals). Also, his rather extensive restatement

of Abraham Maslow's hierarchy of needs probably will not be particularly novel to most readers. Perhaps in his review of Maslow and his use of sport analogy he should have recognized the difficulty in setting specific goals and the potential dysfunctional effects of "too easily obtained" or "unattainable" goals.

Despite a few other minor shortcomings, however, *High Output Management* should provide "food for thought" for practicing managers. Include it on your bookshelves. □

Books Briefly

Compiled by Dwight Gardner, Business Librarian, College of Business Administration, The University of South Carolina.

Dismantling America: The Rush to Deregulate

By Susan Tolchin and Martin Tolchin
Houghton Mifflin Co., 1983, $16.95

The Reagan Administration's push to deregulate American business has been a mistake, the authors argue, maintaining that government regulation is a necessary part of our modern, high technology society and serves the purpose of protecting the public's welfare. They use frequent examples to illustrate their arguments, such as the reduction of automobile safety regulations which expose the average citizen to greater hazards.

Buy Low, Sell High, Collect Early, and Pay Late: The Manager's Guide to Financial Survival

By Dick Levin
Prentice-Hall, 1983, $17.95

This book covers the basics of corporate finance with the emphasis on finding solutions to real world business problems. It covers such topics as taxes, the Internal Revenue Service, dealing with bankers, and cash flow management. The analysis should benefit small businesses dealing with the problems associated with rapid growth.

Executive Musical Chairs

By William Wilkinson
Warrington & Co., 1983, $15

The author, a former corporate headhunter, provides an insider's look at executive headhunting. Covering both sides of the executive search process, he details how to hire a search firm and what services it will provide. He also includes what the executive in search of a position should know in order to succeed.

Working Together

By John Simmons and William Mares
Alfred Knopf, 1983, $15.95

This book should help companies experiencing difficulties in management-union relations. It shows how cooperation between management and workers can boost productivity and reduce tensions. As one possible approach, it advocates the formation of quality-of-work-life committees, but cautions there is no single, best system to organize workers.

Nuclear Inc.: The Men and Money Behind Nuclear Energy

By Martin Hertsgaard
Pantheon Books, 1983, $16.95

This study of the nuclear energy industry maintains that nuclear power is based on still-unproven technology and is both dangerous and costly. It traces the development of the industry and explains how the problems with safety and finances originated. Included in the analysis are numerous interviews with industry leaders. □

BUSINESS AFFILIATES

The Business Affiliates program of The USC-Business Partnership Foundation, chartered in 1977, is designed to attract business investment and participation in the programs of the College of Business Administration. Advantageous to both, this program benefits the business community through better prepared graduates and higher levels of professionalism of employees who participate in the graduate or continuing education programs, and the college through a new sense of relevancy and realism from corporate and business involvement.

Membership funds supplement university appropriations and provide for faculty development, student aid, and program and research support, as well as development of a professional business library within the college. It is the foundation's hope that this will prove to be an ever-expanding partnership program for the college and the business community.

Those interested in participating in the Business Affiliates Program can obtain further information by calling or writing:

J. Stanley Fryer,
Associate Dean for Development
College of Business Administration
The University of South Carolina
Columbia, SC 29208
(803) 777-2910

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Standard Federal Savings & Loan Association
Standard Life
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Business & Economic Review

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Volume XXX, Number 4
July 1984

MIBS on Its 10th Anniversary

Managing Your Time Effectively

Stress

Marketing Communications: The Future Is Here

Southern Deficits

The Business of Law

Robots: Coming to Work in America

Introducing — Business Forum

Will the New Technology Manage Us?

Tax Shelters in Transition

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Correspondence: Send all correspondence and also all manuscripts (two double-spaced copies, plus a short biographical sketch) to The Editor at the above address. Telephone (803) 777-2510.

Member, Association for University Business and Economic Research.

MIBS on Its 10th Anniversary

A decade ago, the Master's in International Business Studies program was launched at The University of South Carolina. Today it is the largest nationally accredited graduate program in international business at any American university. Here is MIBS' story.

Jan Collins Stucker

When University of South Carolina President James B. Holderman headed up the United States delegation to an American Red Cross conference last year in the Philippines, he and some colleagues found themselves on a hot, dusty road outside Manila. Spying a rickety, decrepit building that advertised cold drinks inside, the group stopped. As they gratefully ordered refreshments, they noticed a bumper sticker on the shack's peeling wall. "This is Carolina Country," it read.

Graduates of USC's Master in International Business Studies (MIBS) program, Holderman now jokes, certainly do get around.

In just 10 years, MIBS has become the largest nationally accredited graduate program in international business at any American university, with the second largest international business faculty (New York University has the largest). Combining a rigorous academic program with a unique six-month company internship abroad, MIBS is a two- and three-year course of study that trains promising young men and women to be future managers in the rapidly growing field of international business. Intensive foreign language training and cultural conditioning are key aspects of the program. All graduates are bilingual; many speak three or four languages.

558 Graduates

To date, 558 students have completed the MIBS program, landing jobs with more than 100 international or multinational firms and 138 other organizations and government agencies, at a median starting salary of about $27,000. The program has come a long way, indeed, from its inaugural year a decade ago when 40 students began MIBS classes on the Columbia campus of the South Carolina university.

When James F. Kane, Dean of the College of Business Administration at USC, first envisioned a MIBS-type program in the early 1970's, even he didn't realize how successful it would become. "I was very conscious in those days that we had to do something in the international business area," Kane remembers, "because the state of South Carolina was beginning to get heavily into international business. But I also was careful not to duplicate what other schools were doing. I didn't want to out-Harvard Harvard, but to pick our own niche instead."

What Kane did do was appoint a committee to come up with ideas for a fledgling program. Allen B. Dickerman, then head of the International Management Department at Syracuse University, came to USC in the summer of 1973 as a consultant for the program. His job was to determine the interest of the multinational business community in a MIBS-type program.

"I sent letters to 300 or so companies around the world, and, frankly, the replies were very discouraging," Dickerman, now Professor of International Business at USC and MIBS Director of International Development, recalls. "They said it was too expensive to send Americans abroad for training. They also said they preferred to send their own employees to their foreign offices. In other words, what the replies meant was that we had a big selling job to do."

Admissions Requirements

Dickerman, who had headed the international business program at Syracuse for more than two decades, later was made a Visiting Professor at USC and then MIBS' first full-time Director. He and other members of a specially-appointed committee developed a tentative curriculum, solicited input from business executives nationwide, and persuaded the USC-Business Partnership Foundation, which provides private financial support to the College of Business Administration, to give both start-up funding and helpful advice.

Jan Collins Stucker is Editor of the *Business & Economic Review*. A former reporter for newspapers in Michigan and South Carolina, Ms. Stucker also was a business writer for *The Charlotte Observer*. She is a correspondent for *The Economist* of London, and is a free-lance writer for a number of business publications. She studied business and economics at Harvard University in 1979-'80 as a Nieman Fellow.

The selection process, both in 1974 and today, is based on a combination of brains and motivation. "The program is very difficult and fast-paced," says Robert Kuhne, a native of the Netherlands and a former Director of MIBS. "We keep it that way to guarantee first-rate graduates. (Only about half the original class was graduated.) We must turn out high quality products to get the companies to come to us and to keep coming back."

William R. Folks, Jr., the current Program Director of International Business, agrees that MIBS is "well known as a tough program." Admissions requirements for the first MIBS class (37 men, 3 women) included an undergraduate grade point average of at least 3.0 (B) and a minimum of 450 on the Graduate Management Admissions Test (GMAT). The GMAT score of the Class of '85 rose to an average of 560 while that of entrants to the Class of '86 is even higher — 590.

The Class of '84 graduated 103 students — 29 of whom were female. Seventy-four were U.S. citizens and 29 were foreign nationals, selected from nearly 400 applicants. Foreign countries represented in the Class of '84 included Australia, Belgium, Brazil, Chile, Colombia, Ecuador, France, the Federal Republic of Germany, Japan, Korea, Malaysia, the Netherlands, Pakistan, Singapore, and Spain.

Intensive Language Study

When MIBS students arrive on campus each June to begin their rigorous year-round program, intensive language training in French, German, Spanish, Portuguese, Japanese, or Arabic is the order of the day for three months. Foreign students must take English classes. All students take an additional pre-business course.

In September, the students begin a nine-month "mega" course which teaches them the fundamental business skills needed for a career in international business. Segments include financial and managerial accounting; economics; international management; personnel and labor relations; quantitative methods; finance; operations management; marketing; international accounting; and foreign exchange export-import techniques. Featured during the fall and spring semesters are appearances by multinational company executives who lecture on key international issues.

The intentionally difficult "mega" course leaves a number of students by the wayside, unable to keep up with the heavy work load. But the increasingly better caliber of students being accepted is cutting down on the attrition rate. Compared with a 20 to 30 percent dropout rate in the early years of the program, it's now down to about 7 percent.

Internship Preparation

During the second summer session, the students take a course designed to teach them the cultural and political background of the area where they will be spending their six-month internship. The aim of the course is to make them better managers when they begin working in a foreign environment. The students also attend a second sequence of intensive foreign language training in Cologne, West Germany; Brussels, Belgium; Medellin, Colombia; São Paulo, Brazil; Cairo, Egypt; or Tokyo, Japan, to hone their language skills in a business application.

Students then report to 1 of more than 100 companies for their internships, including such firms as Delta

James F. Kane, Dean of The University of South Carolina's College of Business Administration, counsels a student in his office on the Columbia campus. It was Dean Kane who first envisioned the MIBS program in the early 1970's.

"MIBS is a two- and three-year course of study that trains promising young men and women to be future managers in the rapidly growing field of international business."

Steamship Lines in Chile, IBM Deutschland in West Germany, Sony in Japan, and Du Pont de Nemours in France and Switzerland. The internship provides the students an opportunity to work in a mid-level management position while learning corporate skills and putting to work knowledge learned in the classroom. The internship is the capstone of the students' 15 months of academic preparation; it must be completed successfully for them to earn their MIBS degrees.

Teik-Lin Teoh, MIBS '85, listens to a speech given during the tenth anniversary celebration of the MIBS program in March 1984 at The University of South Carolina.

Final Phase

At the end of the internships, the students return to USC's Columbia campus for the final phase of the program — an eight-week course emphasizing policy formulation, corporate planning, and case histories, as well as a directed study seminar on particular areas of international business.

Clemens Caicedo, 31, MIBS Class of '79, was one of those graduates who received a job offer from the company for which he interned — New Jersey-based Merck & Company. Today, the Colombian — who is fluent in Portuguese, Spanish, and English — is Director of Operations Improvement for Merck, Sharp & Dohme in Brazil, charged with helping the pharmaceutical company become as productive as possible. Of the MIBS program, he says, "I would rate it a 4 on a scale of 5. MIBS is truly an international program vis-à-vis other MBA offerings, because it prepares you for new cultures and new languages, and also for the trauma of moving [to another country]. You probably will not be successful in international business unless you can adjust to these things."

Rita Kennedy, also a MIBS graduate of the Class of '79, is Division Planning Manager of the Industrial Fabrics

"The internship provides the students an opportunity to work in a mid-level management position while learning corporate skills and putting to work knowledge learned in the classroom."

Division of Burlington Industries, Inc., the nation's largest publicly-held textile firm. Formerly based in New York City, the 30-year-old American was transferred to Burlington's Cheraw, S.C., location this past spring. A political science and German major in college, Ms. Kennedy thinks her MIBS training gave her the break into the business world she probably would not have had without it. "The internship program [she interned in Germany with BASF chemical company] is a real plus," she says. "If anything teaches you international business, it's being [there]."

James B. Sommers, Executive Vice President of North Carolina National Bank, has considerable experience in the real business world, of course; that's why he hires MIBS graduates. "You can't take a young man from Wofford [College, in Spartanburg, S.C.] or a young lady from [the University of North Carolina at] Chapel Hill and plunk him or her down in a foreign country, ready to do international business," he says. "MIBS graduates already have the necessary background and an interest in international business."

New Tracks

MIBS' new Arabic and Japanese tracks — both begun in 1982 — are designed to fill the void of American business executives who speak Arabic or Japanese and who are familiar with the cultural and business climate of the Middle East or Japan. Both tracks require an extra year of strenuous language training, making the program three years instead of the normal two.

"There is a tremendous need for Westerners who can speak Japanese and who are familiar with Japanese business practices," says Jeffrey Arpan, Professor of International Business and Director of MIBS' Asia-Pacific Programs. "We're breaking new ground in Japan." (It's estimated that about 10,000 Japanese conduct business in the United States for their firms, and most of those 10,000 speak English. By contrast, about 900 Americans conduct business in Japan for their firms, and few speak any Japanese.)

Kate Gillespie, the first Director of the MIBS' Middle Eastern Studies Program, says American business executives who can speak Arabic are few and far between, as well. "The need is great," she says, adding that the number of students applying for the Arabic track is expected to increase rapidly in the next few years. Job offers should be plentiful for these graduates, too.

Officials Pleased

Officials at the Detroit-based Burroughs Corporation, which began hiring MIBS interns in 1980 for its Latin American region, have been so pleased with the program they are considering sending MIBS interns to their Far East and European operations as well. "Their language skills and international orientation mean they're up to speed in half the time of other new employees," says Anthony Benson, Human Resources Manager of Burroughs' American Pacific Division.

Professor Folks has ambitious plans for expansion. He would like to increase the number of entering students each year to 300 (it's about 140 now) and the number of faculty proportionately, and expand the German and Spanish tracks. Major growth is expected in the number of students applying for admission to the Japanese and Arabic tracks, and Folks is also considering beginning an Italian track.

But MIBS officials agree that without more corporate support, any expansion goals will have to be put on the back burner. "We're working on that now," says Allen Dickerman. "We're trying to get the top management of major corporations to learn more about our program, and then commit to hiring our interns and graduates. The only way we can continue to survive is to receive the support of top management themselves." At graduation in 1983, just 13 percent of the MIBS graduates had permanent jobs. One year later, however, 96 percent had jobs — most with international responsibilities. Folks say he is "reasonably pleased"

David Ryan

Lisa Jones

David Kollmorgen

with this figure, but agrees it takes longer to place MIBS graduates because they don't begin interviewing for jobs until March 1 — when they return from their internships.

David Daniel, Director of Corporate Relations for MIBS and a member of the MIBS Class of '83, believes that, while "the name of The University of South Carolina does not carry the weight of a Harvard or a Stanford or an NYU," its program is "first-rate. All we need to do now is let more people know about it!" □

When **David H. Ryan** of Erie, Pennsylvania, caught a bus one day last January in São Paulo, Brazil, he didn't expect to have to find another means of transportation for his return trip. It seems he put on shorts that Sunday morning for a trip to the beach 30 kilometers away. But unbeknownst to him, during the day the transport companies decided to outlaw the wearing of shorts on buses.

It was one of the more memorable experiences of The University of South Carolina's Master in International Business Studies (MIBS) students, Class of '84.

Ryan, 34, decided to enter the MIBS program after nearly 10 years as a Certified Public Accountant in Pennsylvania. A former Peace Corps volunteer in Malaysia, he liked to travel, he liked business, and he was bored with accounting. What better way to change career tracks than through MIBS, he reasoned.

Ryan interned with Pennsylvania-based Westinghouse Corporation in São Paulo, specializing in financial planning. The overseas experience, he says, gave him an "excellent perspective. When I'm sitting in an office in the United States in the future and dealing with an international problem in, say, Brazil, I'll have a good idea of exactly what's going on."

He plans to work with a multinational corporation in an international treasury position.

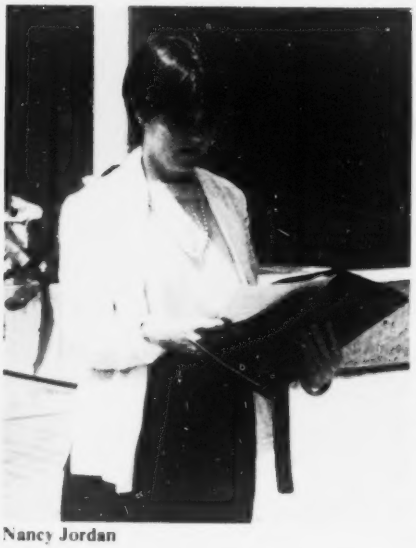
For **Lisa Elizabeth Jones,** 24, the MIBS program was a way to combine her love of, and facility for, languages (she studied Spanish and French in college) with her interest in international marketing. The Alabama native, a graduate of Birmingham-Southern College, did her internship with Johnson & Johnson in Cali, Colombia. The New Jersey-based company has subsidiaries in more than 50 countries throughout the world. As a product assistant for Johnson & Johnson, Ms. Jones did research on various consumer products; wrote instructional materials; and translated work from English into Spanish — and vice-versa. "It was a wonderful experience," she says. "The people were absolutely marvelous, though there were adjustment problems at first to things like mosquitoes and subtle cultural differences." Speaking Spanish "95 percent of the time," she immersed herself in the culture of Colombia.

Of the MIBS internship, she says, "It's the very best part of the program. It's your chance to find out if you can do it and to make mistakes and get away with it!" Living abroad, too, was helpful. "Just doing it proves you *can* do it."

Ms. Jones plans to work in the United States for a few years before returning abroad, but she plans eventually to work in a foreign country. "My talents are in international business. It's what I've trained for all these months."

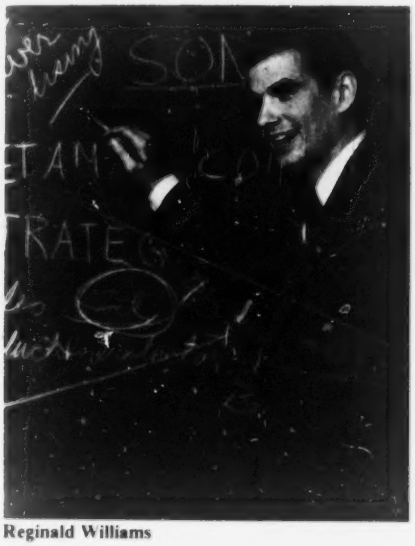
David W. Kollmorgen's German heritage helped him decide where to spend his MIBS internship: Frankfurt, West Germany. A native of Iowa and an economics graduate of Dartmouth College, the 26-year-old Kollmorgen worked in the corporate finance department of Degussa AG, a large precious metals, chemical, and pharmaceutical company. The internship "gave me a real feel for the importance of the world economy," he says.

Kollmorgen didn't speak a word of German when he enrolled in the MIBS program two years ago. But he wanted to learn another language and live abroad. So he and his wife did just that:



Nancy Jordan

Thomas Klimpke



Reginald Williams

they learned German and did considerable traveling throughout Germany and Europe. "If you're into art, history, and music, Europe is a paradise," Kollmorgen says. Though most Germans speak English, not many American businessmen speak German or understand that country's business practices, according to Kollmorgen. Consequently, there is a "big market" for American business people in Europe, particularly Germany, who speak the language, he says.

Kollmorgen and his wife liked Germany so much they hope to return there for three or four years, then settle in the United States.

When **Nancy L. Jordan**, 23, interned for E.I. Du Pont in Paris and Geneva, she learned quickly how to do business "a la francais. I spent two hours each morning shaking hands around the office and saying, 'Bonjour' to everyone. That was very important in order to be accepted."

As the only female auditor with Du Pont in Europe (where she once was set to work analyzing the company's entire accounts receivable computer system), Ms. Jordan was noticed, but not always taken seriously, by her French male colleagues. Still, she says, it was a marvelous experience. "The internship," she says, "is the high point of the [MIBS] program."

Born in Atlanta, Ms. Jordan was graduated in 1982 with a degree in economics from Duke University. She also had studied French — "to fill the holes in my schedule." Her brother, who teaches finance at the University of Georgia, told her about MIBS and said he thought it would suit her financial and language background perfectly. He was right.

Ms. Jordan began her new job in May with the Atlanta office of Credit Lyonnais, France's largest bank. She hopes to return abroad in a medium-level executive position within five years.

Thomas Klimpke of Berlin, West Germany, worked in the Comptroller's Office of the international division of Merck, Sharp & Dohme International, where he was responsible for analyzing the sales and costs of the company's Europe Africa area. "I really got inside the financial conduct of an international operation during my internship," says the 27-year-old Klimpke, one of the foreign members of the MIBS Class of '84. "I saw vital information you don't usually get to see."

For Klimpke, the internship was the main reason he enrolled in the MIBS program. As a graduate of the Technische Universitat Berlin and a Fulbright Scholar, he already had considerable academic experience. But his knowledge of real-life business behavior, of corporate behavior, was lacking — until his internship. "It turned out to be the most important part of the program," Klimpke says. No European program he is familiar with combines the academic and the practical the way MIBS does. "It's unique," he says.

Klimpke, who plans a career in international banking, cautions that the MIBS program is very difficult. "You need a lot of motivation. There are times when you say, 'Why am I doing this to myself?'"

Klimpke plans to return to Germany for a few years in an international banking position, then work abroad, perhaps in the Far East.

When **Reginald O. D. Williams**, 30, began working at the Tokyo headquarters of Sony Corporation last year, he was placed in the planning department for the Japan Consumer Products Group (domestic marketing operations). There, due to his unique position as an American MIBS intern fluent in Japanese, he gained exposure to top management throughout the marketing organization and was given assignments in several different product divisions. "To receive exposure of this breadth, a Japanese management trainee at Sony would have to spend 15 years with the firm," he says. "Naturally, however, there would be little comparison in the depth of our experiences."

Williams, a native of Indiana, became

the first graduate of MIBS' new Japanese track when he received his degree this past May. His interest in things Japanese was first kindled more than a decade ago, when he took a seminar on East Asian studies during his junior year in college. Later that summer, he taught English in summer school to a group of Japanese students. "That's what really convinced me I wanted to go to Japan."

After graduation from Eckerd College in St. Petersburg, Florida, Williams lived, studied, and taught in Nagoya, Japan, learning Japanese — and acquiring a Japanese wife in the process. Additional study at Cornell University followed, where he taught and learned more Japanese. By the time he was posted to Tokyo on his MIBS internship in the Consumer Products Division of Sony in the fall of 1983, his Japanese employers "were very surprised at my language ability." He was often asked his opinion at management meetings — something that rarely happens to a company neophyte.

Williams plans to work in the United States for a time, then return to Japan for some years before probably settling permanently in the United States in a marketing-related position.

Americans who speak Japanese well and understand the Japanese culture and business climate still are comparatively rare, so Williams sees an unlimited job market for people with training like his. "There are more Japanese companies looking for American interns than there are interns. There's a huge market for people like us." □

Jan Stucker

MIBS Graduates: Where Are They Now?

'81 **Jose M. Mora,** MBA Business Analyst, Eli Lilly and Company, Cali, Colombia.

'83 **Victor R. Ayalde,** Branch Manager, Banco Anglo Colombiano, Cali, Colombia.

'82 **Karen Clark,** Budget Analyst, Baxter Travenol International Services, Brussels, Belgium.

'82 **Marty Seigel,** Financial Analyst, Beatrice Foods Company, Miami, FL.

'79 **Rita J. Kennedy,** Division Planning Manager, Burlington Industrial Fabrics, Cheraw, SC.

'76 **Ben T. Ott III,** Assistant Vice President-International, C&S National Bank of Georgia, Atlanta.

'77 **Becton Ford,** Vice President, The Chase Manhattan Bank, New York, NY.

'80 **Carol M. Zajac,** Senior Financial Analyst, Digital Equipment Corporation, Munich, West Germany.

'82 **Alison Cohen,** Business Analyst, Dun & Bradstreet Operations, Burlingame, California.

'80 **Frances A. Katrishen,** Auditor, Esso Inter-American Inc., Buenos Aires, Argentina.

'83 **Patricia M. Krall,** Credit Analyst, European-American Bank, New York, NY.

'80 **John R. Loughridge,** Auditor, Esso Inter-American Inc., Buenos Aires, Argentina.

'76 **Russell U. Crosby,** MIS Consultant, Federal Express Corp., Memphis, TN.

'80 **Benjamin L. Wofford,** Production Planning Analyst, Ford Motor Do Brazil, São Paulo, Brazil.

'83 **Robert P. Gachot,** Trade Specialist, French Foreign Ministry, Paris, France.

'82 **E. Kevin Moore,** Financial Specialist, General Foods Corp., White Plains, NY.

'83 **Christine E. Campbell,** Vice President, German Trade Center, Atlanta, GA.

'77 **Luis E. Gotilla,** Finance Manager, Gillette Do Brazil, & Companhia Rio de Janeiro, Brazil.

'77 **Dennis V. Leong,** Vice President-Marketing and General Manager, Golden Food, Inc., Rock Hill, SC.

'77 **Roberto Guelfi,** Director of Finance, GTE Do Brazil, SA Industria E Comercio, São Paulo, Brazil.

'79 **Udom Prepraemvatana,** Senior Product Manager, Hagemeyer (Thailand) Company, Bangkok, Thailand.

'80 **Teresa C. White,** Contract Analyst, Harris Corporation, Dallas, TX.

'81 **Marcelo Amaral,** Financial Analyst-International, Hewlett Packard Company, Palo Alto, CA.

'79 **Michael Bledow,** Marketing Manager, Hoechst Colombiana SA, Bogotá, Colombia.

'83 **Katherine M. Huelster,** Financial Analyst, Honeywell Europe, Brussels, Belgium.

'80 **Claudia K. Smith,** Vice President of Project Development, Hunter-Kay, Inc., Rockingham, NC.

'79 **E. Larry Jofre,** Assistant Controller, IBM de Venezuela, Caracas, Venezuela.

'81 **Jorge E. Blanco,** President, Index International, Houston, TX.

'79 **Linda M. Jordan,** Marketing Manager, Jagenberg, Inc., Enfield, CT.

Managing Your Time Effectively

Most of us waste two hours of our time at work daily. Here are some tips by a time management expert that will help you save that time, and use the hours gained for yourself.

William M. Morgenroth, Sr.

It's about time . . . we learned about time. No one defines it adequately, but the Greeks had two words for it — one for an occasion, the other for a device to measure the distance between events.

Most of us waste two hours of our time at work daily. The basic reason? Habits and ways of doing things picked up over the years. We recognize in ourselves a paradox: none of us has enough time, yet each of us has all the time there is.

To manage our time means to manage ourselves — an unattainable goal! Still, we eventually realize we can control some aspects of our lives if we want to enjoy the extra two hours we're wasting each day.

Begin by setting goals *in writing*. Unless we have goals, we are all Alices wandering in Wonderland. Remember her conversation with the Cheshire Cat? She saw a crisscrossing of roads that confused her, so she asked the cat,

> "Where do all
> those roads go?"
> "Where do you
> want them to go?"
> "I don't know."
> "Then it doesn't
> matter which road you
> take. You'll event-
> ually arrive somewhere."

Step One

The Cheshire Cat's logic makes my point. You must decide where you want to go before you can save time. Start with goals — what you'd like to accomplish in the next three months, unless it doesn't matter what you do with your time. Your goals should meet several standards.

1. *Be in writing.* Put them on paper, and put the paper in a visible spot at your work desk. That will keep your goals in your conscious mind. You won't forget them; writing is magic.
2. *Be specific.* This gives direction and enables you to measure your progress en route. Instead of saying you want to be a better accountant, or salesperson, or manager, put down specific improvements you'd like in performance units or percentages.
3. *Be realistic.* Set goals within your reach. Goals can't be fantasies, but must be reachable — with some stretching.
4. *Be compatible.* The goals must fit each other: this eliminates uncertainty and indecision.
5. *Have a time schedule.* Set a target date for finishing each step as well as each goal.

Step Two

The second major focus is on where your time is going. It will take time, at first, to save time. Inspect your activities to see if they are consistent with your goals. You need to find out where your time is going, because you probably really don't know.

For two weeks, keep a daily log. Every 15 minutes, write down a brief, simple record of what you are doing. Writing as you go is more honest and accurate than trying to remember at the end of the day. Total the time spent in each activity and see if the activity lines up with a major goal. Decide if some activities are worthless, then eliminate them. Are there some activities that could be done by someone else? Are there some that could use less time and still be acceptable? How is your time being *wasted?*

Focus more time on the important activities. Your log will help you find the time for important goals *and* prepare you for step three.

Step Three

Planning your time is step three. The alternative to planning is flying by the

William M. Morgenroth, Sr. is Holder of The Citizens and Southern National Bank Chair of Business Administration at The University of South Carolina. A former wrestler, college dean, federal agent, and methods engineer, he regularly conducts seminars on communications for the top management of numerous corporations and institutions. Morgenroth, who holds degrees in mathematics, accounting, sociology, and industrial management, is certified in Time Management by the Time Management Center of St. Louis, Missouri, many of whose ideas are expressed in this article.

"Begin by setting goals *in writing*. Unless we have goals, we are all Alices wandering in Wonderland."

seat of your pants — putting out fires from one day to the next. It takes time to plan — to make planning a habit. Spend 10 minutes at the end of each day, 20 minutes at the end of each week. Start with next week.

First, write out at the top of a sheet of paper your goals for next week. What results can you expect? Then analyze important goals and rank them. Figure out the activities needed for each goal and the amount of time they will take. Optimists underestimate the time. Realists will see results weekly, and revise honestly. Once you have a couple of weekly plans under your belt, *you'll* be a realist.

Your schedule is your time assigned to each activity. Tackle the tough problems early, along with the urgent ones. Daily planning is the correct way to change to good habits. From your weekly plan, transfer the activities appropriate for tomorrow. Add the necessary routine activities, then assign each activity a priority and a time estimate. As you schedule tomorrow, concentrate your tasks in the morning. The more you can get done before noon, the better your day. Fewer interruptions and a clearer head will make you more successful.

Use big blocks of time for the important tasks. A "quiet hour" helps you isolate yourself and be unavailable to everybody so you can work. Some tasks will take longer than you estimate; others won't. Use any extra time to apply to the important work. If necessary, delegate the less important work. It helps your juniors grow, and saves you time. Delegation is a sign of good organization of your work. It's also a sign of trust, and a basis for your juniors to become more strongly motivated. And, it gives you time to concentrate on vital tasks.

Frontal Attack

Now for a frontal attack on the time wasters. From your daily log, which you recorded in 15-minute intervals, you have identified five of the major time wasters: drop in visitors, the telephone, meetings, reading, and paper work. Admit mentally that bad personal habits in dealing with these five time wasters are your enemy. Good personal habits will drive out the bad ones — wishing won't. Here are a few suggestions.

Drop in visitors may carry the plague, but treat them with tact and brevity. Close your door, or rearrange your office so your desk is away from sight or so there is no chair for a visitor. Meet visitors outside your office, or go to theirs. Require appointments, and have your staff save up several items for one visit. A quiet "No" when a person asks, "Do you have a minute?" can be polite and firm.

With telephone calls, tact is a must, to protect your job and your personal relationships. So is brevity. Splash through the small talk, get to the point, and politely end the call. A telephone answering machine is a fair substitute for a secretary. If you have the latter, have him or her screen incoming calls, respond to routine requests, look up data for your replies. Publishing your quiet time will reduce the frequency of calls. Place your calls in batches and ask those who call you often to do the same. Outline your ideas before phoning. If a long-winded caller hangs on, hang up while you are talking.

Most meetings should be eliminated because they are usually a way of avoiding decisions. The necessary meetings should have published agendas, begin on time, and end on time. Participants should arrive when needed, depart when not needed, and be given a follow-up action plan to learn everyone's responsibilities. Meetings held with everyone standing by using a telephone conference call will cut time and costs.

Reading can be shared with secretary and staff who will screen, file, delegate, or jettison mail. Use the *Wall Street Journal* approach, and have secretaries or aides sum up major articles for you, like that business newspaper's front-page section. Throw away junk mail unopened, and get off mailing lists.

"Concentrate your tasks in the morning. The more you can get done before noon, the better your day."

With paper work, delegate to secretary and staff — they are competent. Ignore minor mistakes. Clear your desk by throwing away every possible piece of paper. If you don't need to keep a record of certain correspondence, answer those letters by writing in their margins — then no filing is needed. When a formal response is needed, think small, and write simple letters.

Using this handful of new personal habits fits in beautifully with your new habits in time logs, goal setting, and planning. You are now on your way to being a successful time manager, with less stress and more opportunity to be a happy person. You'll be more effective and more efficient. Now comes the best part: use the time gained for yourself! □

Robin Ridgell

stress

Tension at the office means stress. What to do? Try practicing both "high tech" and "high touch" stress management techniques. You'll be glad you did.

Randy Lamkin

Your life is hectic: deadlines, demands, challenges, reports, phone calls, meetings. You end up tense, anxious, frustrated, on edge. THIS IS STRESS. You try hard to relax but there's so little time. What you need is a stress management approach strong enough for your stress. You can find it if you know what to look for. Peace of mind, relief from tension, enjoyment of life can be yours *if* you know what to do.

Stress management has become *high tech*, i.e., a wealth of assessment instruments, meditation techniques, deep muscle relaxation, autogenic training techniques, and biofeedback machines. As good as this technology is for reducing stress, however, it is incomplete because you also need *high touch* stress management, i.e., management techniques that lead to personal growth and development. Stress management becomes high touch when you incorporate the needs people have for *spiritual* growth.

Randy Lamkin is Director of Student Health Promotion and Leadership Development in the Division of Student Affairs at The University of South Carolina. He is also Adjunct Assistant Professor in USC's School of Public Health. A partner with the Columbia consulting firm of Bergmann, Lamkin and Associates, he frequently gives speeches and workshops on stress management, leadership effectiveness, and related topics.

In his best selling book, *Megatrends*, John Naisbitt says that the more technology you introduce into people's lives, the more they try to create a high touch component; or, the more they reject the new technology. The principle of high tech high touch, says Naisbitt, means "you must learn to balance the material wonders of technology with the spiritual demands of our human nature."

High tech high touch stress management means more than reducing muscle tension and mental frustration. It also means inspiring peace of mind, hope, and a feeling of well-being. The more you have biofeedback machines and subliminal relaxation tapes, the more you want to learn how to assert yourself, to understand your purpose in life, and to enjoy the affection and support shared with friends and family.

A complete stress management program balances high tech and high touch. But, before we look at four of the most reliable high tech stress management methods and four of the best high touch methods, we need to keep in mind that while a certain amount of stress is unavoidable in everyone's life, long-term, unusual stress is unhealthy and demands attention. The advice given in this article is designed to (a) help you out with your daily, normal stress and (b) keep you in one piece while you are working out solutions to any heavier problems.

In case of the latter, you need, first of all, to admit that you are under abnormal, unhealthy stress. Then you need to determine specifically what is causing this pressure (divorce, death of a family member or close friend, intolerable working conditions, severe physical problems, a life style that is physically or emotionally draining, an absence of peace at home, an incorrect career choice, or sympathy pains for a loved one experiencing one of the above). Then you must decide to do something *about* it — and believe you *can* do something about it.

Draw up a list of alternatives. Talk them over with a few close friends who have your welfare at heart and the same sense of values you do. If necessary, get professional counseling. Then, on your own, if possible, make a decision, and carry it out. Complete recovery may take time, of course, but the knowledge that you *can* lick it and that you *are* doing something about it and that an end *is* in sight will get you on the road to wellness and off the road to physical and emotional destruction.

High Tech Stress Management

Deep Muscle Relaxation

The following procedure developed by physician Edward Jacobson works to reduce muscle tension generated by the body's physiological reaction to stress.

1. Lie flat on your back in a comfortable place.
2. Close your eyes and take several deep breaths.
3. Begin with your right foot and tighten it as hard as you can for 15 seconds. Relax and repeat one time. Notice the sensations of tightness and relaxation each time you practice.
4. Tighten the right calf muscle as hard as you can for 15 seconds. Relax and repeat one time.
5. Tighten right thigh muscle for 15 seconds. Relax and repeat one time.
6. Same sequence for left leg. Relax and repeat each time.
7. Continue throughout entire body, tightening and relaxing each of the major muscles.

Go back and repeat any muscle groups that are still tense. Notice the sensations of relaxation you feel. Memorize them and make a commitment to feel this way at least once every day.

Relaxation Response Meditation

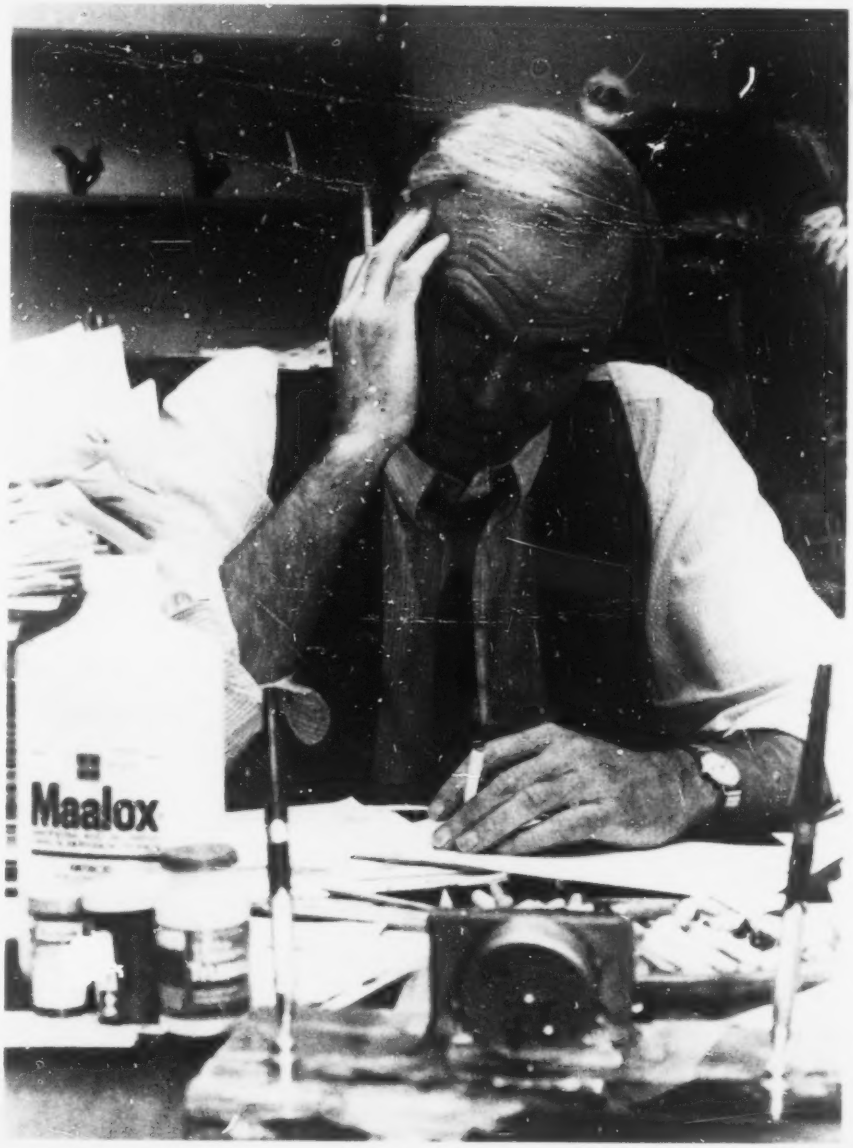
Physician Herbert Benson devised a technique that releases tension by allowing the body's natural relaxation response to occur. You should assume a receptive attitude toward the procedure, and practice daily, at least two hours after a heavy meal. The purpose of the meditation is to quiet your mental activity temporarily.

1. Sit in a comfortable position.
2. Close your eyes and take several deep breaths.
3. Relax muscles, beginning at feet, working up to face. Tense each muscle group, hold it tight for a count of five, then relax it.
4. Breathe through your nose in a natural, unforced unhurried way—concentrate on your breathing. Each time you exhale say the word "one" silently to yourself. Breathe in . . . breathe out . . . and say "one."
5. Continue for 15-20 minutes. You may open your eyes to check the time, but don't use an alarm clock.
6. When finished, sit quietly for several minutes.

Some people are bored when they try this. Make peace with your boredom. You have the right to relax.

Biofeedback Training

Sophisticated electronic instruments can be used to monitor certain physiological activity such as muscle tension, skin temperature, skin conductivity, and brain waves. Visual and auditory signals are fed back to you. Procedures developed by the biofeedback trainer or methods devised by you are practiced until the physiological activity changes from an initial level to a desired level.



"High tech high touch stress management means more than reducing muscle tension and mental frustration. It also means inspiring peace of mind, hope, and a feeling of well-being."

Physiological measures reflect your tension and stress level. For instance, low skin temperature of the fingers indicates tension. When the temperature is raised to near body temperature, you become more relaxed.

Biofeedback instruments are necessary only to convince you that you can exert control over physiological activity. Once the technique is mastered, the instrument is no longer required.

Physical Activity

The stress response is a set of physiological reactions that prepare the body for primitive activities such as escape or battle. In civilized society these actions are seldom called for, so the body is all "revved up" with no place to go. Muscle tension, increased heart and breathing rates, adrenalin, and fat in the blood can be put to productive use through exercise or vigorous physical activity. Walking, running, swimming, bicycling, aerobic dance or exercise, indoor racquet sports, and many other forms of physical exertion have been shown to promote a feeling of well-being; to have a tranquilizing and muscle relaxing effect; to prevent depression; to promote feelings of self-control, self-confidence, and improved body image; and to promote sound sleep. If you want to get rid of stress, get physical.

Significant benefits from high tech stress management techniques have been documented. High tech can probably help you, too. Saying you don't have time really means it's not a high priority. The less time you feel you have for stress management, the more it can help you. When you invest a small amount of time and effort into relaxation, you make a profit. You get back more energy than you put in and, through increased efficiency and alertness, you save time. You may have tried one or more of these techniques. If you did not experience the results you expected, it may have been because you didn't practice enough, because you didn't do it correctly, or because you forgot to incorporate high touch methods to complete your stress management program.

High Touch Stress Management

Spiritual Uplifts

Many people have activities or events that lift their spirits and make them feel good. Psychologist Sid Jourard said that "events, relationships, or transactions that give a person a sense of identity, of worth, of hope, and of purpose in existence are 'inspiriting.'" Some examples are visiting, phoning, or writing someone; relating well to your spouse or sweetheart; completing a task or project; spending time with your family; having good times with friends; reading; sewing or crafts; things going well at work. Religious services and worship experiences are relied on by many people for this spiritual uplift.

Social Support

A substantial body of scientific evidence shows that people who have strong connections to other people through time, energy, and quality of relationships live significantly longer and healthier lives than isolated, unconnected people.

Life sometimes provides moments of tenderness, of sharing, of deep affection, of moving beyond the ordinary layers of experience and people feel "touched." They literally or figuratively touch someone and are touched in return. Everyone needs to believe he/she is cared about and loved, esteemed and valued, and that he/she belongs to a network of communication and mutual support.

Many people make such a strong commitment to their careers they neglect their personal and family life. Sometimes it takes a crisis to shake them into reordering their priorities. Creating and maintaining a balance between their personal and professional lives is crucial to their well-being.

Laughter and Play

Play includes some of the elements of physical activity, but is so important in its own right that it deserves special mention. Whether or not it increases confidence, decreases anxiety, provides practice and rehearsal for new behaviors, or generates any other serious outcome, play is fun and fun is good. Play

"Creating and maintaining a balance between one's personal and professional life is crucial to one's well-being."

activities enable you to let go, to lose self-consciousness, to relax, and to empty your mind of thought. The release of emotional inhibition in laughter is socially appropriate and stress reducing. Uncontrollable laughter, the kind that physician Andrew Weil, in his book *The Marriage of the Sun and Moon*, says leads to "loss of upright posture, paralysis of the diaphram, and copious production of tears," leaves you feeling relaxed and cleansed.

A Purpose in Life

A unique potential in human beings is the existence of a clear sense of purpose. This sense of purpose can be defined as a commitment to, and involvement in, a cause or endeavor that takes you beyond yourself. A purpose may include doing for others, or pursuing cultural values such as honesty and fairness. A life purpose gives meaning to your life, makes you feel good, provides you with enthusiasm, energy, and creativity. Making the time and effort to discover and affirm your personal purpose in life will improve your psychological and physical well-being. Stressful challenges and events can be dealt with in terms of this purpose and seen as learning experiences.

High touch stress management is recognized and appreciated by many people. Norman Cousins, former Editor of *Saturday Review*, cured himself of a life threatening illness through high touch stress management. As he concluded, "Creativity, the will to live, hope, faith, and love have biochemical significance and contribute strongly to healing and to well-being. The positive emotions are life-giving experiences." Whether you wish to save your life or just to make it worth living, the qualities locked within our human potential can be set free through high touch.

The Ideal of Balance at Work

The principle of balance expressed in the idea of high tech high touch stress management in the lives of people is also expressed in a new view of organizational leadership. Thomas J. Peters and Robert H. Waterman, Jr. found in the 75 well-run companies described in their book *In Search of Excellence* that top executives create an environment clear in its intent, its purpose, and its values. The key words in the eight factors that make companies excellent include experimentation, simplicity, service, reliability, quality, basic values, creativity, innovation, and respect for, and appreciation of, people. Richard McKnight, in *Transforming Organizations*, says the workplace that creates the best climate for productivity is the one that makes employees feel valued and aligned with some great purpose.

Rosabeth Moss Kanter studied about 50 top American corporations for her book *The Change Masters: Innovation for Productivity in the American Corporation*. The three stages of innovation she and her research team discovered — problem definition, coalition building, and mobilization — require persuading more than ordering, team building, seeking input from others, showing "political" sensitivity, and sharing rewards and recognition.

Close examination of these and other studies and reports coming out of corporate America reveals that a balanced leadership is both active and receptive. The active leader initiates, expects, controls, delegates, prioritizes, and rewards, and is tough and task oriented. The receptive leader listens, appreciates, cooperates, is sensitive to the needs of people, and affirms their humanness. Balanced leaders combine these two dimensions.

As business leaders reconcile the "high tech" of short-term profit, with the "low tech" of long-term quality, they will create such a balance. A life balanced by the high tech high touch stress management approach can better meet these challenges. □

(Related article next page)

Communicating Effectively

Relationships with other people—and the resultant disagreements, conflicts, and expectations — are the source of considerable stress in both our home and work environments. Much stress is the result of poorly expressed expectations. A subordinate, for example, doesn't *know* what is expected, or an aggressive supervisor *demands* adherence to uncertain expectations. In most cases, a clear understanding of what is expected would reduce uncertainty and, therefore, stress levels — even if the expectations were unfavorable.

To provide a clear understanding of what you expect at the office, it is essential that you be able to communicate effectively. The ability to express ideas, values, intentions, appropriate emotions, and evaluative feedback clearly is a vital component of any business person's stress management.

The three most important communications skills are listening, appreciating, and confronting. Each of these skills can be applied to both oral and written communications.

Listening

Assertive listening means actively showing the other person you hear both the words and "music" (nonverbal cues) they are trying to convey. You can do this in two ways — by *paraphrasing* and *perception checks*. Paraphrasing means translating words into different words of equivalent meaning. Instead of *saying*, "I know what you mean," *show* the person you really do understand by repeating what they said, but in your own words. Perception checks are nonevaluative suggestions from you about the nonverbal communication accompanying the person's words. Invite the person to whom you are listening to recognize an emotion you perceive. You might say, for example, "I notice you feel very angry about that." Offered in this spirit, the speaker always has the option of declining your interpretation and instead clarifying the actual emotion he or she is experiencing. Paraphrasing and perception checks are important building blocks to a solid foundation of understanding among people.

Appreciating

Even the most self-motivated independent people need recognition and praise for a job well done. Expressing appreciation for accomplishments, valued skills, and abilities helps create a climate of support that fosters creativity and innovation. Don't withhold appreciation in the belief that giving it will make people stop trying; and don't become so task-oriented you forget how important it is to be personal. When asked what contributes most to job satisfaction, people overwhelmingly say relationships at work. When positive interpersonal relationships abound, people will tolerate less favorable working conditions. Appreciation and praise represent the "high touch" aspect of basic communication.

Confronting

Fear of conflict and lack of confrontation know-how make healthy confrontation an endangered species. Few people like conflict, and most of us resent having to deal with it. People, we think, are *supposed* to do their jobs without correction. But teaching, supervision, and management require critical feedback and reprimands if behavior is to be corrected. Expectations are not always clear, nor are they always adequately understood. So all of us occasionally must confront someone if we want to achieve our goals.

Think of confrontation as a process of educating people about their actions. Small increments of confrontation — fine tuning — are easier to give *and* take than massive amounts.

Identify the behavior, its impact or consequences, and the desired correction. Say something like, "When you didn't give me the proposal on time, we missed the deadline for submitting bids, and we lost a potential contract. Next time, I want you to give this your highest priority." When someone else's actions cause stress, it is important to communicate this effectively to them. Overcoming our hesitancy and learning how to confront will make us far better communicators and reduce stress in the long run. □

—Randy Lamkin

"Much stress is the result of poorly expressed expectations."

For More Information

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Marketing Communications: The Future Is Here

Entrepreneurs have always marketed their wares in a variety of ways, but today's products are being hawked by telephone, computer, and psychobiology (the study of the connection between human physiology and human choice behavior). In marketing, the future is already here.

M. Wayne DeLozier

Entrepreneurs have marketed their products in a variety of ways since time immemorial. In recent years, however, marketing communications has become extremely sophisticated and even, some would say, futuristic.

Today it's clear the future of marketing communications lies in two areas: telemarketing (a strategy that uses electronic instruments to enhance the traditional marketing communications mix and thereby increase, broaden, and integrate current sales and service functions), and psychobiology (the study of the connection between human physiology and human choice behavior).

Telemarketing is fast becoming a reality because of the rapid growth of highly sophisticated, low-cost products and services in the field of electronics. Psychobiology, on the other hand, has received the serious attention of marketing communicators because of its applications to the ways consumers' minds process information.

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Telemarketing

Since its inception, electronics has been a marketing communications tool. Marketers have used the telephone, radio, television, and other electronic instruments to communicate their product offerings. Today, with the ever-growing demand for, and use of, in-home computers, consumers are becoming more sophisticated. Instead of their "going to the market," the market comes to them. This escalation in technology brings a budding opportunity for marketing communicators.

When used as a component of the marketing communications mix, telemarketing can reduce the cost of selling by selecting the most likely prospects on a calculated and precise basis. Teleshopping is a branch of telemarketing in which in-home selling is the primary objective.

Computer Well Suited

Because sales and marketing are basically processes of handling and transferring information, the computer is very well suited for use in managing marketing communications efforts. As telemarketing and electronic marketing become more refined, marketing communicators will be able to build more sophisticated data bases of current and prospective customers for specifically targeted markets.

Recently, a company called AdTEL developed an approach variously referred to as "scanner-cable" or "a combination split cable and scanning" technique. Using this system, AdTEL provides identical programming to all cable TV viewers, but "splits" advertisements to the audience. One portion of the audience receives the regular commercial while the other is exposed to a test commercial. All viewers are given a plastic card that enables them to obtain a discount at local grocery stores. The plastic card is presented to the cashier who feeds it into a computer to register the consumers' brand selections.

In-home telemarketing surveys will increasingly become a marketing approach in the future. The systems will contain panels of consumers with personal computers who regularly answer onscreen questionnaires. These data will be processed immediately to guide marketing communicators in shifting resources to areas of primary importance.

Personal Selling Benefits

Personal selling also can benefit from "computer marketing." A system can be developed whereby a salesperson can call a customer and use a visual computer display to guide him through a questionnaire. This call will further qualify the prospect based on the results of the initial questionnaire. A second contact will be made for qualified prospects only. The type of contact will be determined by the computer depending

on various factors that affect the probability of actually selling the prospect. The second contact could range from a personal sales call to another phone contact. In the event a phone call is deemed the best form of contact, a computer will guide the salesperson through an intricately programmed sales dialogue. With such a computer program, the telephone marketer could scan all known data on the prospect to help him choose immediately what to tell the prospect at any point during the call.

The system, some of which is presently in the making and some of which is already functional, would be programmed to track continuously all required follow-up activity and to display all appointments on the computer screen each day. The required follow-up would take precedence over all other telemarketing activities and remain on the screen until all requirements were acknowledged. Having these requirements appear on the screen daily would help reduce lost prospects due to poor records.

The aforementioned discussion deals primarily with industrial telemarketing as opposed to consumer telemarketing because the information required for the system to work generally is available only for organizations. Perhaps in the near future the necessary information will also be available for individuals.

In-Home Teleshopping

The second major area of marketing that features dynamic new developments is in-home teleshopping. In-home teleshopping is still a rarity, but in five years it could be quite widespread. All a person needs to shop at home is a television, a Cable TV subscription, and a telephone. Products or services are demonstrated and discussed via the cable network in a presentation that is more informational than standard advertising. Presently a Cable TV show is offered by the Modern Satellite Network of New York called "The Home Shopping Show." This show is neither pure advertisement nor just information: it is a mixture of both. Toll free numbers appear during the presentation to provide a way for interested consumers to obtain more information or to place orders. Eventually, if the concept of in-home teleshopping becomes widespread and technology permits, consumers could call in and ask on-the-spot questions.

A theme emerges from the teleshopping concept, a theme of turning the television into one component of a two-way communications process. As the name suggests, UTV Talk-Back Televisions from the UTV Cable Network of New Jersey make the interactive television telephone system a reality today.

UTV says, "Interaction is the key to our Involvision TM programming. Using the telephone, viewers get involved in the action — as it's happening. Everything from game shows to the soaps to talk and information to comedy variety to rock music. They play along and win prizes. Get free samples and coupons. Vote on issues. Talk with their favorite celebrities. Involvision *rewards* them for watching by giving them added value. Result: a loyal viewer typical of readers but unique to television."[1] In describing the extent to which in-home teleshopping will soon be used, Thomas Maker says in *National Underwriter*, "It will be beamed into . . . 18 million homes and is designed for national direct marketers."[2]

Consumer Information Processing

Interest in the human information processing system, i.e., consumers' minds, is also a "futuristic" concept that has already arrived. In fact, it will be the dominant research topic in marketing communications and consumer behavior throughout the 1980's and '90's. Groundwork for such research has been laid the last five years.

For many years, we have studied consumer information processing. But, without that "label" or term to describe the more "holistic" concept, we have

"Instead of consumers 'going to the market' today, the market comes to them via in-home computers."

heretofore studied piecemeal. The label focuses researchers' attention on a more comprehensive, total consumer (human) communications process.

James Bettman has helped popularize the idea of consumer information processing with his book, *Consumer Behavior: An Information Processing Perspective.* Bettman's model, however, has its critics. They believe that while this model does describe certain aspects of consumer choice behavior, it is perhaps narrow in its treatment of the human information process. In particular, they believe it does not capture all the multifaceted dimensions of consumer information processing.

Morris B. Holbrook and Elizabeth C. Hirschman, marketing professors at Columbia University and New York University, respectively, suggest that consumer information processing should also incorporate consumers' fantasies and feelings — an affective dimension. On many occasions, Erich Fromm, the well-known psychologist, commented that the most effective forms of advertising were the ones that appealed to consumers' fantasies. The only question advertisers had to ask, using this notion, was what are consumers' fantasies *regarding our product?*

Sometimes they make the wrong assumptions! In Germany, advertising for women's perfume became sexier and sexier, until it included near nudity of female models. However, this approach was never really successful, because, as one innovative company learned, it is romance, not sex, women are seeking. When this firm acted on its findings and changed its advertising accordingly, its campaign was successful.

In general, the Holbrook Hirschman schema is a hedonistic (or pleasure) model. It suggests, for example, that consumers do not purchase art simply for investment purposes, but also for the pure pleasure the art itself gives them.

Both of these models are basically intuitive, but the research that goes into studying the consumer's information processes demands at least the same rigorous scientific investigation that has brought marketing communications to its present status.

Psychophysiology (Psychobiology)

Although marketing communicators can learn much from questionnaire-designed studies on consumer information processing, the future may very well lie in psychophysiology (psychobiology). This particular field studies the connection between human physiology and human choice behavior. More specifically, it looks at how the physical human brain processes information and how that processing translates into consumer choice behavior.

The left lobe of the brain governs logic and reasoning, while the right lobe houses creativity and imagination. Some people are left-lobe dominant; others, right-lobe. That is, some people make decisions based primarily on logic, while others make choices on a more intuitive basis. Still others, a small portion of the population, have active transference between both lobes of the brain and develop a synergy that enhances the use of either. These different "styles" of human information processing could be interpreted as different market segments that lend themselves to different marketing communications strategies.

Additional research for marketing communications should be forthcoming as psychophysiologists examine differences in the human brain among the lower-left brain lobe, the upper-left brain lobe, the lower-right brain lobe, and the upper-right brain lobe. So what is marketing research eventually evolving into? My guess is basic chemistry. Is that too futuristic? I don't believe so. Human beings, body and mind, are made up of chemicals. In the future, marketers will need at least to understand what today we call biochemistry, or the study of the chemicals of the body coupled with the study of traditional biology.

Interactive Communications

What are the interactive effects of the media used? What are the source (communicator) effects? What are the effects of order of presentation? What are the

"In the future, marketers will need at least to understand what today we call biochemistry, or the study of the chemicals of the body coupled with the study of traditional biology."

effects of appeals? In other words, how do all these and other variables interact to produce the desired result?

Another direction in which we can expand our future research is in personal selling. Isn't the "standard" salesperson-prospective clients relationship a bit naive? Why not look at the interactions among salespersons, clients, product perceptions, company perceptions, situational perceptions, etc.?

Future research should, and will, focus on the interaction of all marketing communications variables. Such research more closely reflects the reality of marketing communications processes.

Nonverbal Communications

Another area seriously neglected in marketing communications is the effects of nonverbal communications on advertising and personal selling. Several books have been published on such things as body language, color psychology, symbolism, music psychology, and graphic psychology. But most of these books are based on observations, suppositions, and intuition. Very few are based on scientific investigation.

Pupillometrics (measuring the change in pupil size) eye direction research, and the gestural code (or nonverbal communication), as examples, have undergone some scientific investigation. However, the overwhelming majority of nonverbal cues we all talk about as being important in marketing have not really been researched.

The Schlitz Brewing Company, for example, learned that one kind of background music in a TV commercial for Schlitz beer gained a significantly more favorable audience reaction than the same commercial with a different musical background. They also learned that some people reacted to an Old Milwaukee beer commercial as immoral because a young man and a young woman backpacked to the top of a high mountain, started a fire at night, opened a beer, and, obviously, would have to spend the night up there. But, they were apparently not married because the woman wore no wedding band. The result? The Schlitz Brewing Company refilmed the last segment of the commercial (at considerable expense) to show a wedding band on the young woman's left hand.

Why hasn't more research been conducted in the area of nonverbal communication? The reason is probably twofold. First, it seems so intuitive. But if that assumption is correct, why do companies spend so much money refilming commercials to correct obvious errors? Second, the research tools to study nonverbal communications are unsophisticated. For example, we all can intuitively agree that the initial handshake on meeting people is very important in creating an impression. But how do you study or measure a handshake?□

1. "The U.V. Breakthrough," *Advertising Age* (2 November 1981): 99.

2. Thomas Maker, "Cable TV Focuses on Satellite Shopping," *National Underwriter* (17 July 1982): 2.

Southern Deficits

After the Civil War ended, recovery came quickly to the North and East. The West, too, began generating extra capital for investments and growth. But the vanquished South remained economically dormant for more than a century. Today, the South still is the capital deficit region of the United States. But things don't have to stay that way.

Charles D. Ravenel

Many observers wonder why the Southeast, and South Carolina in particular, rank so poorly in most national social and economic measures. Infant mortality, teacher pay, aptitude scores, average income per capita, life expectancy, and general wealth all find the South in last place vis-à-vis other sections of the United States. I believe a major unrecognized cause of this situation lies in the dearth of indigenous capital from which these broader problems spring.

This lack of capital can be traced to the Civil War. In 1865, when the war ended, Southerners had their capital in three forms: agricultural land, slaves (worth about $700-$1,000 each in 1860), and Confederate bonds. The bonds and the slaves became worthless upon defeat, and the land generated no surplus capital for 100 years. In fact, even to this day, the land generates no extra capital, for Southern agriculture in the aggregate is a subsistence activity.

Economically Dormant

After 1865, while other sections of the country grew, the South lay economically dormant for a century. While the North, Midwest, and the Far West generated capital surpluses, the South merely survived. The shoe, textile, and shipping industries thrived in New England. The apparel, immigrant services, advertising, and financial industries grew in New York and Philadelphia. The food processing, auto, machine tool, and steel industries multiplied healthily in the Midwest. And, in the Far West, cattle, oil, gas, minerals, and railroads surged with profitability.

All these industries outside the South threw off capital surpluses that intermediated themselves into a vast array of financial institutions. There was the extraordinary growth of the John Hancock Mutual Life Insurance Co. in Boston, for example; Massachusetts Mutual Insurance in Springfield; Hartford Steam Broker Insurance and Connecticut General in Hartford; and the great New York-New Jersey capital institutions like the Morgan and Chase Banks and Prudential Insurance. Pittsburgh, Cleveland, and Chicago burst with large pools of capital in the Mellon Bank, Cleveland Trust, and the Continental Illinois Bank. Bank of America surged in the West. These large and rapidly growing institutions had no kin in the South, for there was little capital that needed intermediation.

Those outside the South had a disposition problem. What should be done with all that capital to preserve and nurture it? So these institutions began to invent all manner of esoteric forms of capital instruments to make their capital attractive to the rapidly multiplying industries spawned by the growth in the North, Midwest, and Far West. The insurance companies invented long-term private debt placements. Subordinated debt was created, along with subordinated debt with equity kickers, options on securities, convertible debentures, preferred stock, mezzanine financings, index funds, commodity straddles, etc. Around these new instruments, entire financial industries sprung up. The mutual fund industry was created in Boston. The Stock and Bond Exchange and the venture capital industry were born in New York. The Commodity Exchange was formed in Chicago.

Suffocating Reconstruction

In the South, none of this happened. The basic economy did not recover from the Civil War for virtually a century, since the war was followed by the suffocating "reconstruction" period. While the rest of the United States managed to do relatively well during the First and Second World Wars and the intervening Depression, the South didn't have enough financial marrow in its bones to do more than survive. Thus, its recovery was slow and small, and only in the late 1960's and 1970's did it even begin to close the economic gap. Today, it still remains far behind.

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"All we have of any size in the South are two general institutional forms: savings and loans, and banks."

What this has meant financially is that the South is still the capital deficit region of the United States — and by a very large margin. There are no institutions in the South akin to the Mellon Bank or The New York Stock Exchange. As a result, even today in this part of the country there is no long-term private placement debt available, no subordinated debt, no subordinated debt with equity kickers, no mezzanine financing, virtually no venture capital, few if any sale lease-backs, and almost zero capital available for the latest financial invention, the leveraged buyout.

All we have of any size in the South are two general institutional forms: savings and loans, and banks. Southern savings and loans have confined, and still do confine, themselves almost totally to first mortgage primary residential home mortgages, thus making themselves unavailable to general business as a source of capital. (This is very slowly, in 1984, beginning to change.)

Small Banks

As for the only capital source available — banks — they are so small (except in the cities of Charlotte and Winston-Salem, North Carolina, and Atlanta, Georgia) that, in bank loans per capita, the South ranks at the nation's bottom, and South Carolina bank loans per capita rank 50th among the 50 states. According to the *South Carolina Business Journal*, "based on the capital available in the banks of the Southeast, Georgia, Virginia, and North Carolina, each had total loans in 1982 of more than $15 billion." By contrast, South Carolina's entire banking community only lent $4 billion. Even Mississippi and Alabama lent $6.5 billion and $9 billion, respectively, because of their larger capital base available through the financial institutions in their states. But these numbers for loan productions of entire Southeastern states are overwhelmed by the size of even one bank like Citicorp, whose loans in 1982 exceeded the combined loan production of South Carolina, North Carolina, Virginia, Georgia, Tennessee, Alabama, and Mississippi.

Because of the lack of capital supply, Southeastern banks find themselves in a sellers market. This has bred understandably excessive conservatism and lack of creativity. Charleston, South Carolina, for example, is one of the most rapidly growing metropolitan areas in America; but its banks generally *close* each working day at 2:00 p.m. and open only partially after 4:00 p.m.

This shortage of capital is a relatively new problem because of the recent rapid economic growth of the South. This growth, though it derives from a low base, is very large in marginal terms. The anomaly of limited capital supply and enlarging capital demand from increasing economic growth has not escaped the major money center banks. The problem, however, is that the big financial institutions are now so large they are *too* muscle-bound to service this young and poor economy. They are confined to inflexible standard products of high volume and low price (credit cards, auto financing), or to huge size, if flexibility, speed, originality, and creativity are required. They can give you a credit card at one end, or finance a $25 million leveraged buyout on the other; but they cannot, and do not, serve any need in between. Unfortunately, the vast majority of the need is exactly there: in between.

Tragedy — or Opportunity?

The tragedy, or opportunity (the Chinese character for crisis can also mean opportunity), is that all the nation's growth has, and will, come in the aggregate, outside the Fortune 1000 corporations. The small companies are growing most rapidly, and are the ones that most need capital in multiform pools. In the South, though, these pools do not exist.

This spells vast opportunity for companies that focus their efforts on the capital needs of smaller companies. But until more vendors of the in-between sort come on the scene, or until the existing local banks change their centuries-old character (likely a very difficult and slow process), the South and its capital-thirsty young companies will suffer a disadvantage compared to the rich and diverse remainder of the United States. □

The Business of Law

Competitive pressures are forcing lawyers to begin running their law practices like businesses. Some attorneys may not like it, but it's the only way to survive during the coming decades.

Claude M. Scarborough, Jr.

Many members of the legal profession still shudder at the thought that business principles could have any significant relation to the practice of law. But — the attorneys who adhere to such principles will be the survivors in the next decade.

From "Profit Pressures on the Big Law Firms" in the April 19, 1982, issue of *Fortune* to "Lawyers Versus the Market Place" in the January 16, 1984, issue of *Forbes*, lawyers have been admonished by the business sector to become businessmen-professionals.

According to *Forbes*, "Competitive pressures are forcing lawyers to become businessmen. The lawyer who doesn't become a good businessman isn't going to make it." Fortunately, this idea is beginning to take hold. All levels of Bar Associations are offering seminars on the use of computers and other technological advances, public relations, marketing, and innovations designed to increase profits without necessarily increasing costs.

The modern law firm is — or should be — a business. There are some distinctions, of course. A law firm, for example, is typically a general partnership, not a corporation; it has general partners, not stockholders; its business normally is directed by a management committee, not a board of directors; it markets its services within the tight restrictions of the Canons of Professional Ethics, rather than engaging in totally unrestricted advertising; and its income is derived from fees charged for the time and expertise of its professionals, not from the sale of a product.

A Businesslike Manner

These are distinctions in form, however, and not substance. A law firm is a business, and it must conduct its affairs in a businesslike manner. That means setting goals and strategic planning. It also means maximizing profits by controlling overhead costs, adhering strictly to budgets, and introducing necessary information management systems.

The necessity for a businesslike approach arises from two factors: more attorneys and increased use of "in-house" counsel employed by the business community.

The number of attorneys in the United States has risen from 355,000 in 1970 to 622,000 in 1984, more than double the number per 1,000 population of any other country in the world. At its current pace, the number of American lawyers will exceed 1 million by the mid-1990's. In South Carolina, the number of lawyers has grown from 2,904 in 1975 to 5,381 in 1984. (Reliable statistics were not kept before 1975.)

More and more business entities are enlarging their in-house legal staffs to reduce dependence on private law firms and thereby combat the escalating cost of legal services. The number of lawyers working for corporations, reported *Fortune*, doubled between 1970 and 1980.

Keep Competitive

Given this trend, private law firms must be able to keep their prices competitive. Those lawyers in private firms who have had the most success in the past 10 years have been those who adopted business principles and practices, and those whose operations have become either full service (offering a wide variety of legal services) or intentionally limited to one popular, specialized area.

Any type of law firm should (1) retain recognized professionals; (2) have sufficient personnel to handle emergencies, without lessening the quality of their regular services; and (3) always be guided by clients' needs and desires, particularly where the cost of services is concerned, rather than by its own ideas of what the clients should have.

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To maximize profits, any business must provide the best possible service at the lowest reasonable cost. To do so, it must monitor closely every aspect of overhead.

The highest single cost in a law firm's overhead generally is staff. The successful law firm today should require its professionals to use dictation equipment, provide a word processing group for the transcription of documents, and maintain a ratio of not more than one secretary for every three professionals.

Monitor Overhead Costs

Although most law firms today don't prepare annual operating budgets, they are a necessity in order to monitor overhead costs. But the budgets can't just be prepared; they must also be strictly adhered to.

Computers should be used to provide management information on a weekly and monthly basis, including work performed, hours worked, fees charged, and amounts received as income; to facilitate calculating, processing, and mailing client fee statements; to keep a record of receivables and income; and to perform all other bookkeeping requirements of any well-run business. To obtain the best use of computer equipment, more and more firms are going to two- and three-shift operations in their word processing and accounting areas. This makes the most efficient use of expensive equipment, thereby helping to keep down overhead costs.

Salaries of professionals are also a large overhead cost. Paralegals—persons with specialized training who assist lawyers — have become an acceptable alternative today to hiring more and more attorneys. Since salaries for paralegals generally are less than those for attorneys, overhead costs are less. The use of paralegals is a critical management decision that can strongly influence profitability and cost competitiveness.

Every general partner (the equivalent of a corporate vice president or higher) of a law firm is part owner. Due to the sheer number of general partners in a larger outfit, however (10 or more partners), the administration, operation, and direction of business is supervised by a management committee, generally consisting of a few partners selected by all the partners.

Input from, and the consensus of, all general partners concerning management objectives, of course, should be obtained. One of the best ways to do this is to hold at least one planning meeting a year. Here goals are established or reaffirmed. Problems and opportunities in reaching those goals are evaluated, and strategic plans developed. New fields of law in which expertise should be developed, and all those business considerations normally overlooked on a daily basis, are scrutinized. Standing committees within the firm are established, and the strategic plans developed at the planning sessions assigned to the appropriate standing committees for action and or monitoring. Smaller firms with fewer than 10 partners would do well to use these same general procedures, although smaller firms can do things a bit more informally.

Unified Effort

The best method of assuring a unified effort in attaining objectives is for every attorney in the firm to rotate service on all standing committees. This way, each will eventually be exposed to, and become a part of, all aspects of the law firm's activities.

In most law firms of any size, a business or office manager also must be hired to oversee proper functioning of the library, staff morale problems, staff compensation, the hiring and firing of staff, paperwork, and other matters found in every business.

In sum, the law firm that delivers the best product, at the most competitive price, will be the most successful. To provide, and continue to provide, quality legal services, it must attract and retain the best professionals available. To do this, it must increase profits every year, i.e., operate like any other "business." □

Computers and other symbols of the modern business world are commonplace in the law offices of today. Beset by a variety of competitive pressures in the 1980's, only those lawyers who run their law practices like businesses will survive.

ROBOTS: Coming to Work in America

Intelligence is the hallmark of the new generation of robots — intelligence in the form of sight, touch, and the ability to make decisions. They have a host of advantages, but many human workers fear robots will put them out of a job.

Michele J. Gengler and Richard J. Tersine

While the cost of American labor continues to rise, the cost of the worker's nonhuman counterpart — the robot — is coming down. A new generation of robots is entering the industrial scene. And as more and more companies turn to robots to reduce costs and improve productivity, the ultimate impact of robotic technology may be the total redesign of manufacturing facilities — a transfiguration that will minimize the role of human labor and completely automate and computerize the factory.

Advantages of Robots

Manufacturers of robots predict their products will take on a greater role because they improve productivity, perform faultlessly, reduce labor costs, ensure higher quality, and increase production flexibility. Robots are already streamlining manufacturing operations and reducing labor costs in industry after industry throughout the world.

Increased Productivity. In 1980, Japan registered a productivity growth of 7.3 percent, a figure consistent with that country's growth rates over the decade.[1] In terms of productivity, Japan is outperforming other countries in certain key industries — industries in which Japan is highly automated and committed to the use of robots. By some Japanese industry estimates, productivity is up by as much as 2,900 percent in firms where robots are being used. Industry experts in the United States who have been studying Japanese production techniques intensively also attribute a large part of the increased productivity to widespread use of robots.

Greater Work Reliability. Industry estimates set the average uptime for a robot at approximately 95 percent, compared to an average of 75 percent for the blue-collar worker.[2] In addition, the robot works three shifts a day, takes no vacations, does not call in sick, does not come to work intoxicated or hung over, and does not become sluggish or bored with the work routine.

Lower Costs. Rising labor costs relative to the cost of owning and operating robots have made the latter economical. Breakthroughs in microcircuitry have reduced the cost and size of robot components and increased their reliability, and have allowed robots to do increasingly sophisticated tasks. In fact, the more elaborate sensory robots have provided the fastest financial payback for many companies with several generations of robots.

The average cost of a robot is approximately $50,000. Thus robots cost about $6 an hour to operate, based on an amortization of the purchase price and an average hourly operating cost. By any calculation, this cost is only a fraction of the average $20 an hour paid to an auto worker in wages and benefits.[3] It is not unusual for firms to report the recovery of the cost of a robot in less than two years.

Continued advances in microprocessors, with resultant cost decreases in electronics, are also driving forces in the growing acceptance of robotics. With the advent of competition from such electronics giants as General Electric (GE), IBM, and Texas Instruments (TI), two of which are buying ready-made foreign robot technology, the learning-curve effect on pricing is expected to come into full play, bringing prices down. Furthermore, as the number of units produced increases (such as the large firms are capable of doing), prices are expected to decline.[4] Couple the drop in the cost of microelectronic devices with the rise in the wages of laborers — and robots make good economic sense.

High Quality. The accuracy and consistency of operation possible with robotized task sequences greatly improves the quality of a product. In manual

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assembly, tolerances can stray as the auto body moves from one stage to the next. Varying degrees of tolerance can result in poorly fitting doors, missing welds, rattles, and leaks; robots can eliminate most of these tolerance variations. Because programmed robotic movements are tighter and the task sequences are totally consistent, a robot can duplicate a correct job sequence for long periods of time with the utmost accuracy. The result is a product of consistently high quality.

A uniformly produced product in turn reduces the rejection rate and the need for additional quality control. At the Fort Worth General Dynamics plant, the computerized Milacron T-3 robot drills a set of holes to a ± .005-inch tolerance and shapes the outer edges to 250 types of parts. It makes 24 to 30 parts per shift, with a zero rejection rate. A human worker can produce 6 parts per shift with a 10 percent rejection rate. The Milacron T-3 costs $60,000 and can save $90,000 in its first year.[4] When robots similar to the T-3 are installed elsewhere, the need for quality control inspection is reduced, while materials usage and scrap rates improve.

Increased Flexibility. Robots can set the stage for the long awaited shift to flexible automation. Instead of buying expensive, inflexible equipment when a product is changed, or setting up massive, complex machinery when changing over production, a company can inexpensively and quickly reprogram robots to do the new jobs. For example, when the "Big 3" automakers realized that many Americans wanted smaller cars, they measured the time required to retool manufacturing facilities in years and estimated the costs in millions of dollars. Robotic equipment would have shortened the changeover time and minimized the cost.

The largest impact of robotics may occur in the estimated 75 percent of all goods produced in batches too small to be economical for conventional automated assembly. Contrary to popular belief, the majority of United States products are not mass-produced but are assembled in small batches as styles and sizes change.[5] At present, these products are usually put together by hand because extensive mechanization is prohibitively expensive. It is now believed that reprogrammable sensory robots could take over many of these batch operations with an estimated reduction in manufacturing costs of at least 50 percent.

Robots also give manufacturers the flexibility to exchange the factors of production capital for labor. Clearly, some jobs are suitable only for humans and some jobs are physically suitable only for robots. But within the broad spectrum of jobs capable of being performed by either, manufacturers can decide when to replace one factor with another. Furthermore, manufacturers not only have an opportunity to select the most economical laborer, but, within the robot category, they also may select the model best designed for the job, or choose one that can be upgraded as needs change. For example, a work method that requires a fixed sequence would need a simple, cheap robot instead of a complex, expensive one. Techniques already are being developed to aid in this selection process. The need for certain abilities has stimulated robot research to develop a worker perfectly suited to a task, thereby offering manufacturers a viable alternative to human operators.[6]

Other Advantages. Robots have other advantages over conventional automation investments. Because they are designed to adapt to changes in the operating environment, they are less risky investments than are fixed systems that become obsolete. Robots are also designed to perform numerous tasks and to be outfitted with several "hands," each peculiar to specific operations. They are more flexible than traditional forms of fixed capital because they are mobile enough to be moved from station to station or to entirely new surroundings, and can be used at selected points on the production line and in stages.[7] The epitome of such flexible automation would be the totally automated factory that is configured to allow changes in products and work methods. Too, robots ignore such inconveniences as heat, noise, nuclear radiation, and noxious fumes. They can perform dangerous jobs, and in so doing, decrease a firm's expenses for safety equipment and workmen's compensation. Robots also can take the place of workers now relegated to menial, dirty, and subhuman jobs.

As employees, of course, robots are less intelligent and have less reasoning power than human workers. However, they never become involved in company disputes, ask for raises, file grievances, commit internal theft, moonlight, or sabotage operations. They are stronger, more consistent, faster reacting, and better able to self-diagnose inefficient performance than are human laborers. Robots can have tremendous computational abilities, large memory capacities, and good deductive reasoning power. They have a large range of "brain muscle" combinations that can be designed to do a series of jobs, and they may never have to be retrained once they learn a skill sequence. They lack individual differences and never have psychological or sociological needs. In summary, robots work more reliably and accurately; they work less expensively and in less controlled environments; and they are, in a sense, more dedicated employees than their human counterparts (see Exhibit 1).

Applications

Robots have been on the industrial scene since the early 1960's. The early models, though simple machines for specific tasks, are still in widespread use. These older industrial, pick-and-place versions are limited-motion devices, controlled by very simple non-computer software using nothing more than a series of wires plugged into a circuit board. They are generally large,

EXHIBIT 1. Productivity Advantages of Robot Workers Over Human Workers

Work more reliably.
Set standards of 95 percent uptime.
Can work three shifts.
Take no vacations.
Take no coffee breaks.
Work more consistently and accurately.
Improve product quality.
Reduce scrap rates.
Make production more predictable.
Contribute to higher capital utilization.
Self-diagnose departures from efficiency.
Can design improved work methods.
Work less expensively.
Eliminate need for workmen's compensation.
Eliminate need for retirement plans and social security.
Eliminate need for insurance programs.
Work in less controlled environments.
Work in poor climatic conditions.
Ignore noise.
Do hazardous or dangerous jobs.
Work solely for the organization.
Do not moonlight.
Do not engage in industrial espionage.
Do not sabotage operations.
Do not become proselytized.
Do not commit internal theft.

bulky units used primarily for welding and lifting heavy objects. These robots were built to do tough, nasty jobs in hostile environments.

New technology produced computers that enabled robots to learn a succession of tasks, and rendered much of the earlier robot automation obsolete. These latter robots, controlled by microcomputers, can be programmed to perform lengthy, complex sequences of motion, such as those involved in a spot-welding job. The versatility of the programmable robots overshadows current fixed-automation production and specialized machinery designed to perform single functions.

However, these programmable robots, which belong to the primary servo category (nonsensory but reprogrammable), can perform only the programmed sequence. Difficulties arise when parts arrive out of sequence, in a jumbled fashion, or in a defective state. Confronted with these difficulties, the programmable robot cannot perform the task or performs it incorrectly, sometimes crushing parts or ignoring the absence of critical parts. Furthermore, reprogramming entails leading a robot through the requisite task and can prove to be both laborious and disruptive.

However, these robots are involved in a wide array of manufacturing jobs. While the newer models of robots will be adaptable to a broad range of new assignments, many earlier robots are used routinely in hot, hazardous, and tedious jobs. Manufacturing jobs now performed by robots are die casting, forging, stamping, welding, injection and compression molding, casting, spray painting, material transfer, and machine tool operations (loading and unloading; machine-to-machine transfer; and operation of lathes, drilling machines, broaches, grinders, and multiturret machines).

Most of these jobs are dull, dangerous, simplistic, or repetitive in nature. With few artisans left in modern manufacturing plants, work has been broken down into a series of simple, repetitive tasks that can be taught quickly to unskilled or semiskilled labor.[9] Simple tasks can be programmed in robots in order to increase efficiency and to free humans to do human tasks. See box for some recent examples.

The New Generation

The newer generation of robots, the computerized and sensory models, have capabilities far beyond any of the earlier models. No longer must they be led through a task; instructions can be transmitted electronically. The "smart" robot can even improve its own work-routine instructions. It is not confined by lockstep tasks and can use sensory devices to perform complex differentiation. These flexible, movable, reprogrammable, multidimensional workers are changing the nature of automation. The reprogramming capability broadens the scope of their tasks, and they can be fitted with human-like arms and several types of hands that enable them to perform a variety of new tasks.

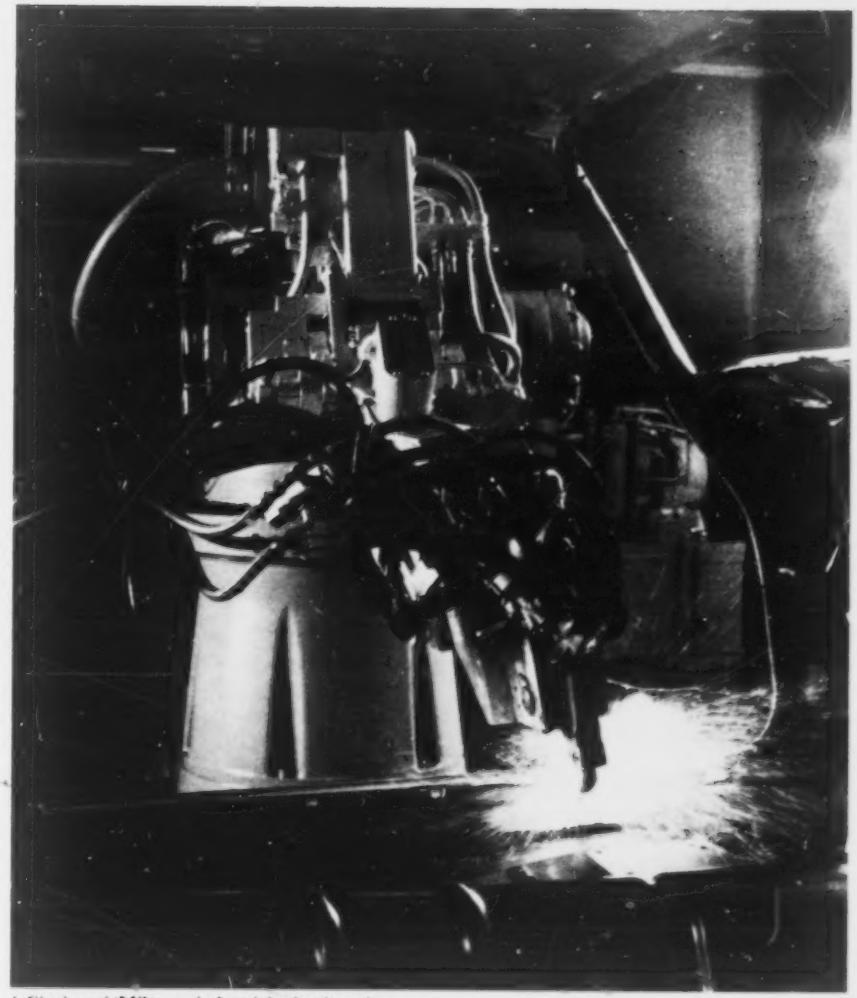
In fact, intelligence is the hallmark of the new generation of robots — intelligence in the form of sight, touch, and the ability to make decisions. Vision is essential to the new robot generation, since in assembly operations the robot must be able to adjust to changes in the work environment (e.g., parts arriving out of sequence or incorrect parts). The sense of touch also is a necessity for advanced robots capable of precise parts placement and workmanship. A microcomputer "brain," of course, is required to record the sensory input and cause the robot to respond appropriately to stimuli.

One state-of-the-art robot is the PUMA (Programmable Universal Machine for Assembly), developed by Unimation for General Motors (GM). Built in response to a need to use robots interchangeably with human workers on the assembly line, the PUMA is the most advanced robot in operation today. It can handle assembly tasks because, unlike many other models, it is specifically designed to manipulate small parts and components (components the same size and weight as about 95 percent of the components of a passenger car).[10] The PUMA can, for example, reach into a furnace for a part, perform several operations on it, then replace it in the furnace in an uninterrupted, smooth sequence.[11]

Most of PUMA's success rests with its LSI-11 microcomputer system and its own programming language, which includes 100 English commands. A Digital Equipment Corporation (DEC) system acts as a controller and instructs five microprocessors, each dedicated to one of the five axes or joints (waist,

shoulder, wrist, elbow, and flange). The LSI-11 outputs a new point on the coordinate locations of its required movement every 29 microseconds as instructions to be recomputed by the microprocessors.[12] The number of points disseminated to PUMA is limited only by its computer memory. The result of this processing power is a superbly efficient robot — it can move its arm with pinpoint accuracy to almost anywhere within a 3-foot sphere; its motion is fast and smooth, with as much as 10-feet-per-second tip velocity and a ±0.004 inch repeatability. The locations of PUMA's required movement can be programmed into the DEC computer system, and the program can instruct the microprocessors to move the arm in the most efficient path. The PUMA also can perform one task while being programmed to do another. Thus, work-methods improvement and job training can be incorporated. Dozens of PUMAs without vision systems have been installed at GM, GE, and Westinghouse, and in these locations is considered to be unparalleled in dexterity, speed, and capacity to learn.[13]

Sensory systems are only one component of the future robot. New systems will have to be integrated with computer programs that will enable robots to make primitive decisions. Eventually, robots will take on full-fledged production roles in totally automated factories. Futuristic accounts of robotic utopias are not just idle hypothesizing by technological visionaries of the Orwellian type. At the second show and conference of the Society of Manufacturing Engineers (SME), which focused on the automated plant of the future, the emphasis was clearly on only two of the six technologies featured robots, and computer-aided design and computer-aided manufacturing (CAD/CAM).[14]



A Cincinnati/Milacron industrial robot in action.

Robots have made the transition from science fiction to acceptance as a production tool. In a 1979 survey of manufacturing engineers, 75 percent indicated that their companies were planning to install robots. A secondary study done in that year predicted that by 1987, 15 percent of all manufacturing assembly systems will use robotic technology, and that by 1990, the development of sensory techniques will enable robots to approximate human action in assembly. One marketing study done by the Business Communications Company projected that the fastest growing sector will expand at 51 percent per year,[15] and will reach $1.3 billion in sales per year by 1990.[16] An updated 1981 study has since estimated that the number of robots currently in use in the United States (5,000) will grow dramatically, with GM alone having 15,000 by 1990; and the recognized voice of robot technology, the Robot Institute of America, predicts an expansion of annual sales to $2 billion by 1990.

The earlier generations are used most often, while the "smart" robots are being used in a more limited capacity. Their applications are still experimental. A description of robot genealogy is given in Exhibit 2.[17]

Problems to be Solved

Although robots are not yet a billion-dollar-a-year business, the promise of better productivity has more manufacturers buying robots. Forecasters optimistically predict growing sales for the coming decade. But before assembly by robots becomes a reality in industry, a number of obstacles must be overcome.[18]

Vision. First, the parts-presentation problem must be solved.[19] It is child's play for a human worker to select a part from a bin, but it is an ingenious feat to program a robot to select the correct part from a cluttered bin. The artificial vision systems of today's robots have no serious problems recognizing an object lying alone on a flat surface. In contrast, when the parts are jumbled on top of each other, recognition of individual parts becomes a hideous task for a robotic computer system to accomplish. Refinements in silhouette vision techniques soon should remove some of these limitations, and clever computer programs should solve complex problems of visual judgment.[20] The following refinements are currently being researched.

1. *Local feature identification techniques.* Using variations in light intensity across an object's surface for identification, the robot will be able to discriminate partially obscured objects by detecting different textures, surface markings, or other low-contrast characteristics.

2. *Three-dimensional vision.* This technique will improve a robot's ability to locate and grasp objects and also will be useful when robots gain more mobility and need to negotiate obstacles in their paths.

3. *Recognition techniques.* These techniques are critical to imprinting part-recognition, that is, programming or finding ways to represent three-dimensional parts in a robot's memory.

Touch. A second problem is the correct placement of parts on a conveyor so that they can be picked up by the robots.[21] To work effectively on the factory floor, smart robots will need to supplement their ability to discriminate (vision) with other senses. Touch will be particularly important for close-up assembly work. Robots also will need touch to provide sensory (touch) feedback for delicate grasping of objects, and kinesthetic (direction) feedback for better motor control and part selection when vision may be temporarily obscured by jumbled or buried parts and components.

EXHIBIT 2. Robot Genealogy

Mechanical Robots

INDUSTRIAL

Armlike projections and grippers; built-in control; capable of stand-alone operation

PICK AND PLACE

Electromechanical control; materials handling; limited freedom of movement

SERVO

Servomechanisms enable midair direction changes; multidirection movements dependent on number of articulations in robot arm

PROGRAMMABLE

Servo directed by programmable controller; memorizes movement sequence; reprogrammed by being led through task

"Smart" Robots

COMPUTERIZED

Servo receives electronically transmitted instructions; has ability to optimize or improve work routine instructions

SENSORY

Computerized with one or more artificial senses

ASSEMBLY

Designed specifically for assembly; may have fairly anthropomorphic arm design, especially for light, batch-manufacturing applications

Researchers are developing touch sensors embedded in "artificial skins" made of silicon rubber; they have even developed a touch sensor for use on a robot finger. Using pressure-sensitive switches arranged in a grid pattern, the finger sensor can detect and recognize an object through patterns that are input to a microcomputer and can discriminate among six different objects, including commonplace cotter pins and washers.

Tolerances. The mating of parts with extremely close tolerances presents a third production hurdle. Endowing robots with intelligence is pointless without improving the mechanical arms that translate their intelligence into action. Most industrial robots now in use have pneumatically or hydraulically driven arms. These are ponderous contraptions that cannot perform delicate tasks.

The arms used on the PUMA and other first-generation smart robots now entering the factory are powered by microcomputer-controlled electric motors for greater precision and speed. Other projected improvements in robotic arms include nimble all-electric arms driven by light but powerful motors made of rare earth materials (such as titanium) and general-purpose manipulators to avoid frequent hand changes.

The Automated Factory

Obviously, the best way to eliminate some of these problems would be to design an automated factory from the ground up.[22] If the entire factory were designed to accommodate robots, the bin-picking task or part-recognition problems would probably disappear. For example, parts could arrive from mechanical chutes and vibrator pans, instead of

from bins, making the system peculiar to the robots' processing needs.

Some industry experts expect this eventually will happen. Even if bins, conveyors, and similar equipment remain in use, future robot systems are expected to look very different from those of today, or even those now being used in laboratory experiments. Instead of having a single robot assemble an entire device, future assembly will be by a team of smart robots clustered around some materials-movement device with each robot unit performing a specific task. Each would have enough intelligence to pick parts off a flexible conveyor or out of a bin.[23]

The importance of computers in the automation process must be stressed. The maximum benefit of the sensory robots cannot be realized until industry integrates automation technology with computers. A single robot in an organization is not as economical or practical as several, and even if there is no immediate need for more than one, the lone robot should be regarded as part of a larger plan for additional robots to achieve further economies.[24] The entire system in which the robot will be operating and its effect on other processes must be considered, and plans should be made for group manufacturing processes using advanced technologies combined with computer logic.

A Painful Transition

The coming decade could bring many problems resulting from the change to automated labor, and may encompass demographic, geographic, and educational realignments that are more pronounced than those of the past. The ease with which these realignments will occur is uncertain.

Since modern industrial operations can usually be accomplished in a variety of ways, the basic issue will be to examine and select systematically the most desirable methods. Because robots have proven to be sophisticated, accurate, and reliable machines, they hold great promise for productivity gains, and will, undoubtedly, be selected to perform increasing numbers of routine manufacturing and assembly jobs.

But as robots move into the labor force and become more commonplace, there are fears that these more efficient laborers will usurp not only the jobs of low-skilled, but also the jobs of skilled, workers. Where there previously was little opposition to the introduction of the first-generation robots, worker resistance to job redundancy created by the newer models likely will increase.

Even though opposition is expected, it appears that the economics of robots will prevail. The PUMAs, priced at approximately $35,000, could become interchangeable with laborers. Manufacturers already are making preparations for robot workers. Modern robots could replace 1 million workers by 1990 in the automotive, electrical-equipment, machinery, and fabricated-metals industries, and possibly as many as 3 million workers in these same industries in the ensuing period.[25] Other estimates project a 2 percent replacement of the entire work force, building to as much as 7 percent within the next 20 years.[26] The exact numbers of displaced workers are unknown, but the smart robots — those able to perform complex assembly and inspection jobs — could assume the work of many unionized manufacturing employees.

Some workers and their union representatives are trying to forestall robot automation. Others who recognize the inevitability of increased automation ask that there be no massive displacement and that they share in the benefits of increased productivity. Resolutions urging action to lessen the impact of robots on labor call for stronger guarantees against automation-caused job losses. Some urgent requests include the following.

1. Establishment of labor-management committees that not only negotiate the new technology but also have a voice in whether and how to use it.

2. A government requirement that new technology be installed in plants only when displaced workers can be absorbed into other jobs.

3. Advance notice to the union when a work force is to be reduced and a condition that reduction be done through attrition.

4. Assurance that equipment maintenance and programming remain the responsibility of skilled workers.

5. Training, retraining, and vocational education for workers affected by automation.[27]

6. Placement of retrained workers in the same plant, elsewhere in the local community, or in a company's other plants. Payment of moving allowances to transferred employees.

Problems for Management

Each of the requests poses problems for management, the most obvious being the large outlay of funds necessary to sponsor them. Another difficult problem is the need for the government to intervene in the implementation or the funding of some of the provisions during a time when government intrusion in the private sector is unwelcome. Although management and labor will probably negotiate some concessions, it is doubtful they can eradicate all of the negative effects of automation on workers. By many estimates, the changing employment market could involve considerable worker displacement.

Individuals may become more mobile to deal with the changing job market.[28] Some workers will relocate to find employment as have those who migrated to the Sun Belt. Others will move into other industries, leaving the factories, just as workers left the farm at the turn of the century; and some will move into lower-paying jobs, such as parts feeding and robot monitoring.

Displacement could mean permanent layoffs for semiskilled and unskilled workers. Some jobs would be created to operate and maintain the robots, but

these would require sophisticated electronic and computer training. Other low-skill jobs would be open, but they would make less use of the current skills of workers. In other words, it is possible that jobs could be segmented into separate labor forces — unskilled robot "baby-sitters" at one end and highly trained technicians at the other.

The key to adapting to a changing job market appears to be for workers to acquire new skills and training that will allow them to move to a job created by automation within their firm, or to a new vocation on the outside. This, however, poses new problems. Who will provide the training? Will there be tax credits for industry-sponsored training programs? Where and how will employee training be provided? One cause of eroding productivity is that educational systems do not provide enough support or relevant support to manufacturing. Many colleges and vocational schools are practically devoid of manufacturing technology programs.[29] A shortage of qualified teaching personnel exists. Although educational systems and on-the-job programs can try to prepare students and employed workers to function in an automated environment, these programs — deficient even by today's standards — will have to undergo substantial restructuring and updating to provide better manufacturing support.

One state is already starting a realignment process. Michigan, the state hardest hit by depressed economic conditions and competition, is preparing to capitalize on the high-technology boom and to utilize labor-replacement techniques. State officials intend to recruit the robot industry by offering incentives. First, they plan to promote an abundant labor force of unemployed skilled workers; and second, to provide educational support to the industry with the creation of a nonprofit Industrial Technology Institute that will include a robotics research park.[30] Thus, the state will support new industry, reduce employment levels in stricken industries, and attempt to relocate workers in technologically created jobs.

Just exactly how increased automation will affect the labor force is unknown. The number of theories about the industrial movement toward advanced technology and automated jobs are as numerous as the possibilities. Many observers doubt the new technology will create a situation any more serious than did automation technology of the past. Others take a more pessimistic stand. But where workers and their livelihoods are concerned, most are going to react, and there is a tendency to overreact. The response of labor will continue to change as technology changes and will be characterized by varying levels of employee resistance, reorientation, adaptation, and acceptance. □

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[13]Polcyn, "American Reindustrialization," 18.

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[20]Paul Kinnucan, "How Smart Robots Are Becoming Smarter," *High Technology* (September-October 1981): 23.

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[22]Ibid.

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[27]Polcyn, "American Reindustrialization," 39.

[28]Anderson, "Where the Jobs Are," 89.

[29]Teresko, "Stirring Interest," 103.

[30]Eugene Carlson, "Michigan Sees Robot-Making As a Solution to Its Troubles," *Wall Street Journal*, 23 March 1982, 27.

Robots to Multiply

According to Predicasts, Inc., 315,000 robots will be in use in American industry by 1995, many of them helping to "clone" other robots.

As recently as 1972, there were fewer than 1,000 robots in use by American manufacturers. The population grew at 24 percent per year, and reached 5,093 units in 1980. For the future, Predicasts expects there will be more than 30,000 units in place by 1985, with material handling (primarily machine loading) robots being the most prevalent. By 1995, assembly uses will be the second most popular application (50,000 units in place, compared with 55,000 units for machine loading).

In a recently completed study, Predicasts analyzes the technologies, applications, and markets for the burgeoning robotics industry. In the study, a robot is defined as a reprogrammable, multifunctional manipulator designed to move material, parts, tools, or specialized devices through variable programmed motions for the performance of a variety of tasks.

Predicasts estimates that robotic industry sales will increase from $89 million in 1980 to $600 million in 1985 and $4 billion in 1995.

The development of sensory capabilities will enhance unit sales of several types of robotics. For instance, arc welding robots will experience a growth rate of 42 percent per year and will account for nearly $700 million in sales by 1995. A 42 percent per year growth rate is also forecast for assembly robots, as a result of better vision systems, tactile sensors, and artificial intelligence. Sales of assembly robots should approach $1 billion by 1995. Advances in sensory capabilities will also fuel a 41 percent per year growth in robotic inspection systems, with sales expected to reach $320 million by the mid-1990's.

In 1972, 40 percent of all robots in use were in the automotive industry, and that ratio remained relatively stable through 1980 because most robots were used in spot welding and spray painting — two common jobs in auto plants.

The development of other types of robots and the adoption of robotic welding and painting by other industries are expected to reduce robotic dependence on the auto industry. Predicasts predicts that the auto industry's share of the inuse base will decline from 40 to 33 percent in 1985, 26 percent in 1990, and 14 percent in 1995. This decline in market share is forecast, even though the auto industry will increase its use of robots 23 percent per year through 1995. Electrical electronic manufacturers will increase their use of robots 40 percent per year through 1995. Assembly, inspection, and material handling pick-and-place robots will be the prevalent robots purchased by the electrical electronic industry, and many parts produced by these robots will be for use in other robots.

Aerospace manufacturers, who are currently using robots for parts finishing and coating, are expected to be the next fastest growing segment, accounting for 10,000 in-place units in 1995. Aerospace firms' future uses will include arc welding and inspection robots.

Light manufacturing, which will use all types of robots, is projected to increase robot usage by 37 percent per year, and a 32 percent per year growth in use is forecast for heavy manufacturing and foundries. ❑

Robotics (Report No. E70), Predicasts, Inc., 11001 Cedar Ave., Cleveland, Ohio 44106

Business Forum

Joseph D. Sapp

Track II

(Editor's Note: In this issue, we inaugurate a new column written by local, state, and regional business people. This editorial column will discuss current issues from a business perspective.)

South Carolina started its aggressive industrial development program in the late 1950's under the leadership of then Governor Ernest F. Hollings. Special incentives for industry were established that gave the state a distinct advantage over many other states. That strategy of economic development — "chasing smokestacks" — has worked well. More than 60 percent of the manufacturing plants in South Carolina are relatively new, having been constructed since 1960.

During the 1960's, 689 new factories created more than 70,000 jobs. During the 1970's, an additional 633 factories were built, representing another 70,000 new jobs. In the 1980's, despite a worldwide recession, South Carolina continues to experience good manufacturing development. Over the past 4 years, manufacturers have invested more than $7.5 billion in new or expanded plants and 246 new plants have produced an estimated 22,000 jobs. During the same period, more than 2,800 plants, or well over 60 percent of the state's total manufacturing base, have either expanded or modernized their existing facilities. Our record in "chasing smokestacks" has indeed been outstanding.

A New Twist

Every decade seems to bring its own experts. In the 1970's, we were going to become a nation of cottage industries because we would never again have a supply of energy adequate to sustain industrial America as we had known it. Now, the gurus of the 1980's — Reich, Naisbitt, et al. — have again redefined our future. I'm not smart enough to know whether they are more prescient than their predecessors of the 1970's — they certainly can't be any less.

However, at least one of their points does seem valid. The nonmanufacturing sides of the national and state economies continue to grow at rates well above manufacturing, and will provide an even larger share of jobs. In South Carolina today, 32 percent of our jobs are in manufacturing, 3 percent are in agriculture, and 46 percent are in nongoods producing activities such as finance, insurance, trade, construction, and services. The remaining 19 percent are in government. This shift is evidenced by the fact that, for the last 10 years, nonmanufacturing employment in the state has grown by more than 130,000, while manufacturing has realized a net increase of about 10,000.

Of all business establishments in South Carolina, 76 percent employ 10 or fewer workers. Small businesses have a special importance in providing employment opportunities for minority groups. More and more new jobs are created by new and small businesses, as opposed to established industries.

During the recent recession, for example, when massive layoffs were common occurrences in basic industries, an estimated 1 million net new jobs were created in the nation by young businesses. We cannot overlook the job creating potential of new and small businesses. In depressed and slowly growing regions, they have been found to contribute disproportionately to the revitalization of the local economy. And, finally, it is well known that entrepreneurs are the major sources of innovation in our society. Even the large corporations have begun to recognize this reality, as programs for "corporate entrepreneurship" have become increasingly fashionable.

With these trends in mind, the South Carolina State Development Board has geared up and rearranged itself to add a new twist to its development strategy, intended to take advantage of, and further stimulate, the nongoods producing sector of the economy.

We have arrived at the conclusion that the economic development of South Carolina can no longer be based solely on industrial recruitment. It must also include programs that will nurture the development of new and small businesses indigenous to our state, both manufacturing and nonmanufacturing.

For the State Development Board, this means its long-accepted mission of chasing smokestacks must be coupled with a second track designed to support the expansion of all types of homegrown businesses. These two tracks do not negate each other. Rather, together they represent our best hope for long-term economic development.

Track II

Simplistically, Track I is the traditional chasing of smokestacks, Track II is everything else — particularly the assistance and support of small business development.

We are well on the road to implementing a second track strategy. Here at the State Development Board we have established a new division. We call it BASIC — Business Assistance and Services Information Center. It coordinates all of our second track activities. We are finding that providing *real* help to small business is vastly different and more complicated than Track I. For example, we have never before had any capacity for financial assistance and

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advice. A major corporation locating a plant might ask us many questions, but, other than the status of industrial revenue bonds in South Carolina, they would hardly seek our advice on financing. On the other hand, financial advice and assistance is central to any realistic program of small business aid. In BASIC we are developing that capacity.

Recognizing that success on Track I is "doing one thing well" and that success on Track II is going to involve doing many different things, we have developed a simple philosophy for Track II: take any apparently helpful idea we are capable of administering, and try it. If it works, continue it; if it doesn't, quit and try something else.

As an example, there is the small business "incubator" pioneered by Control Data Corporation of Minneapolis. The incubator, or Business and Technology Center, as it is properly called, provides office space, secretarial services, computer and office automation, and a maze of other support services particularly attractive to businesses just getting started. It also provides an atmosphere where businesses support each other and share common problems. Its success has been phenomenal. The failure rate for small businesses is about 80 percent. In the environment of an incubator, such as the one in Charleston, South Carolina, the *success* rate, by contrast, is higher than 80 percent.*

Through BASIC, the State Development Board contracted with Control Data for state government's support in establishing additional centers around the state. Thus far, with enthusiastic local support, centers for Florence, Rock Hill, Spartanburg, and North Augusta have been approved. Each of these should house 50-100 small businesses. The way this has been done is a first for Control Data and will probably set a pattern for them in establishing future centers. This is a Track II idea we believe is going to work.

Another idea in BASIC, far enough along for us to be confident that it really will help small business, is what we call "buyer supplier match."

We know that manufacturers in South Carolina go out of state to purchase many materials and services. In some instances, local vendors are not available; in others, they just are not known. The more our smokestack industries can buy locally, the more employment opportunities we will have. To help accomplish this end, BASIC established a computer data base of industrial goods and services available in South Carolina. We are in the process of publishing a buyer supplier directory of those goods and services aimed at industrial purchasing agents. To further implement this, a senior purchasing agent of 20 years' experience with one of our major industries is joining BASIC as a field agent to sell this program. We think the system will also help uncover opportunities for new businesses by identifying "voids" in the state's economy that are being served by out of state firms.

A basic (no pun intended) purpose of the EXPO '83 exhibition conference seminars, held at the State Fairgrounds in Columbia last November, was to put our suppliers in contact with purchasing agents. For a first effort, we felt this was successful and should be repeated. EXPO '84 will be held at Textile Hall in Greenville, South Carolina, November 13 and 14. This is another program we plan to continue.

A third program relates to financial assistance and advice. In this regard, the Governor's new approach to the state's role in economic development is particularly important.

Last fall, South Carolina's Governor Richard W. Riley created a task force chaired by Lieutenant Governor Michael R. Daniel to make recommendations as to how the state could better fulfill its economic development role. Representatives of the agencies involved in economic development, the private sector, and the academic community served on the task force. Recurring throughout their various reports and central to their recommendations was one theme: closer coordination among agencies. As a result, a number of interagency teams were formed under the overall supervision of a Coordinating Council, consisting of the chairmen of all the state's economic development agencies.

This team has been working closely with BASIC on the financial aspects of small business assistance. A member of the BASIC staff is assigned full time to establish an information center on all forms of public financial aid available to small business, and we have a growing capacity to match a business' need with an available program. A principal goal of the team is to be able to take viable business plans and actively assist in obtaining financing from both the traditional lending institutions and venture capital sources within the state.

A Commitment

If this editorial seems to be all about what state government is doing, it's only because that's what I was asked to write. We should always keep in mind that when it comes to economic development, government is distinctly a junior partner. Its role is to help where it can and, where it can't, not to hinder.

Our commitment here at the State Development Board, simply stated, is to keep trying. We will continue to work with the programs I have mentioned and with any others that appear helpful. At a minimum, our efforts should help create a better climate for small business development.

While we don't have all the answers, we do not lack the will and desire to help. I would invite anyone reading this column to share with us their ideas as to how we can best support business development. They will find a receptive audience. □

*For a full description of this program, see "A Small Business Ally" by Lt. Gov. Michael R. Daniel in the January 1984 issue of this publication.

BUSINESS & ECONOMIC REVIEW

Information Technology Trends

Larry L. Hamilton

Will the New Technology Manage Us?

In 1974, Theodor H. Nelson published a rarity in technological literature: a delightfully humorous, irreverent, and highly informative book titled *Computer Lib*.

> Any nitwit can understand computers and many do. Unfortunately, due to ridiculous historical circumstances, computers have been made a mystery to most of the world. And this situation does not seem to be improving. You hear more and more about computers, but to most people, it's just one big blur. The people who *know* about computers often seem unwilling to explain things or answer your questions. Stereotyped notions develop about computers operating in fixed ways — and so confusion increases. The chasm between laymen and computer people widens fast and dangerously.

Some people may mistakenly believe the conditions outlined by Nelson have changed because of the recent proliferation of desk top "personal" and home game computers, the increased emphasis on buzz words like "user friendly," and the intense advertising efforts touting the need for something called "computer literacy." For many organizations, especially small businesses just acquiring computer-based administrative support services, the intense competition in the computer industry tends to confuse and intimidate. Specifically, there are at least two serious problem areas that are growing, that can be costly, and for which corrective action is slow in coming.

Larry L. Hamilton is a Columbia, South Carolina-based writer and consultant. Hamilton, who earned a Ph.D. at The University of South Carolina, formerly was Director of the Information Technology Planning Office under the South Carolina State Budget and Control Board's Division of Information Resource Management.

The Pendulum Phenomenon

The first problem area could be called the "pendulum phenomenon." The industry may have gone overboard in "ease of use for beginners" software and hardware. Making computer initiation attractive to a noncomputer oriented person raises the cost of software and computer storage space.

Layers of programming support numerous menus constructed in more or less natural (English) language which gently guide the user through signing on to the system and selecting the functions he or she requires. Some vendors are even marketing "touchable" screens, so the user can keep "typing" to a minimum.

It is well and good if these innovations encourage more learning about, acceptance of, and use of computer-based resources. However, the business manager must be able to see beyond the beginning. After a few weeks of paging through layers of menus to get at the functions and data you are accustomed to working with daily, you are no longer a novice. Will your system allow you to bypass paging through all those menus and get directly to the work? Does the programming behind those menus take up so much computer space you have to buy a big expensive disk storage device to do your work?

The Merging of Technologies

The second problem area is known as the *merging* or *convergence* of technologies: computer-based functions are converging into the multifunction workstation. This type of computer terminal allows access to data processing functions in a mainframe computer, office automation functions (calendaring, messaging, filing, text creation, etc.), and personal computing.

Convergence also includes the merging of data and voice communications technologies. Data and voice signals have been transmitted simultaneously over the same wires or other media for several years but, generally, were originated and received through separate switches or computers. Today, several vendors are marketing integrated data voice switches. In addition, traditional office equipment such as typewriters, photocopiers, optical character readers, facsimile devices, or their functions are being merged into the automated office environment and can be connected through integrated data voice switches. The impact of the converged technology is that data processing, voice communications, and traditional office functions are becoming *integrated* systems. The result of all this is a need for new kinds of planning and management skills.

The professional frame of reference of today's senior and mid-level business managers tends to underestimate or not grasp fully the significance of integrated data and voice planning and management skills. Therefore, the computer and communications-based support services in their businesses seldom are designed for the most efficient, effective, and profitable performance.

According to the most widely read scholarly observers and prognosticators, American business is in for a long shake-out period as a direct result of these factors. The banking community led the way (slowly) in moving data processing managers into the ranks of

Vice Presidents in recognition of the importance of their functions. Similarly, telecommunications managers in banks are beginning to be seen with V.P. labels on their offices. Although recognition of the importance of these functions to the success of the business is growing, they still tend to be in separate divisions. In most organizations this means they also are in competition with each other. Small and medium-sized businesses have problems similar to that of the banks: data processing and voice technologies are treated as separate issues, even when they are planned and managed by the same person.

Technological innovations bringing the business world into the Information Age are also bringing a mix of the traditional challenges to management, and a few new ones, as well. Business people must ask the question, "What does integrated data and voice communications planning and management mean in the context of my business plan?" Although a ready supply of specific answers is not looming nearby, there are some useful guidelines.

Guidelines

The first guideline is for managers to learn how computer-based technology may be used in their businesses — what functions can it perform? The most helpful source of information is people who use computers in similar businesses. Of course, vendors also can supply examples of how technology may fit your business needs. CAUTION! Do not be sold on the very first system! In addition, managers must learn some basics about what makes one kind of computer and set of software more suitable than another. This will require an investment of personal time and effort. Recommended sources are community computer clubs, short courses for managers taught through TEC schools or universities, and training seminars put on by various consultant firms for a fee.

After having gained some basic orientation about computer capabilities and the relationship to voice communications, you may wish to bring in a consultant. His or her role should be to assist you in conducting a technology needs assessment based on your business plan. The consultant also should be prepared to develop a two- or three-year *manager's* plan for your technology needs. The plan at a minimum should address applications to be performed, hardware and software needs, training needs, growth impacts, and cost estimates. It also should designate who has responsibility for planning and managing the technology, the data, and its use. It is worth repeating that the manager's technology plan should be an extension of the business plan. You will find that when vendors explain their computer-based products, it will be more informative if you can ask specific questions relating to your plan. This also will help you compare vendor product lines and prices in a meaningful way.

Many vendors have developed very flexible lease purchase options for medium- and large-sized systems. Similar financial terms are also prevalent among small systems, including personal computers.

As long as the computer purchased initially continues to perform the functions your business requires, it will not be obsolete. Obsolescence commonly means a newer computer does the same function faster for the same or lower cost. It also may require less computer memory to do the same or more functions. Historically, these improvements have been so significant it has been cost effective to make major changes in installed equipment with relative frequency. The factors most critical to replacement decisions are maintenance costs and availability, performance adequacy, life expectancy, availability of more economical systems, and growth capacity. □

BUSINESS & ECONOMIC REVIEW

Tax Strategies for the '80's

James Edmunds Wilson

Tax Shelters in Transition

The tax shelter investment industry, though barely 15 years old, has grown very large very fast, primarily because of the inflation tax bracket creep we have experienced during this period. As this phenomenon seems to be screeching to an abrupt halt, the industry at large — and investment offerings specifically — are in the midst of a fairly dramatic transitional period.

Although the reasons for this transition are many, a more complex, ever changing tax environment and the lackluster performance of many tax sheltered investments are the major contributing factors. Moreover, the seeming abandon several of the large stock brokerage firms have displayed in marketing these programs has tended to exacerbate the already tense tax shelter marketplace. Recently, widely publicized problems with major tax sheltered partnerships have added fuel to an already hot fire.

One of the emerging outgrowths of these uncertainties and problems is a development of no-load or low-load tax shelters (similar in concept to no-load stock market mutual funds). Many investors have begun to question the sometimes huge fees paid promoters and general partners within these investment vehicles. Within many publicly registered (with the Securities Exchange Commission) partnerships, the initial fees can easily exceed 25 or 30 percent of all the equity dollars raised. Investors are beginning to scrutinize conflicts of interest, markups in properties, and unjustifiably large fees much more closely than was previously the case. This new trend toward lower fees will change the industry dramatically, and some fallout will inevitably occur among general partners and sponsors.

Embarrassing Failures

Nearly every major Wall Street brokerage firm has experienced several embarrassing failures in tax shelters they marketed — and benefitted from via the large sales commission and fees. Because many of today's tax shelter investors have participated in similar offerings previously (what I term second generation tax sheltered investors), they are much more attuned to the realities of the marketplace and are demanding substantive changes in fee levels and sharing arrangements. Some industry observers believe this trend to lower fee investments will transform the tax shelter industry much as it has the mutual fund industry over the past decade (more than one-half of the mutual funds in existence today are no-load or low-load).

Investors normally are involved in tax shelter investments via direct participation ownership in real estate projects, oil and gas wells, equipment leasing, and many more complex, more esoteric variations. Nearly all are organized as limited partnerships, enabling investors to obtain limited liability (similar to what they would enjoy if they purchased a corporate security) in return for refraining from an active role in management. Although most investors realize the potential shortcomings of this limited partnership arrangement, few actually have given much thought to the real problems that could develop when performance and or general partner problems arise.

An investment in a limited partnership is, in essence, an act of faith in the general partner or management team. Their financial stability, their ability to handle problems, their previous track record, and, perhaps, even their ability to lend the partnership funds on occasion, are the most important elements in these investment offerings. A marginal investment from an economic perspective with an exceptional general partner may well be more desirable than an investment with a marginal general partner and exceptional property. This is becoming more and more apparent as the initial shake out of large and small general partners occurs.

Disturbing Trend

Over the past several years a disturbing trend has developed in terms of absolute size of many of these limited partnership offerings. It has been argued that because of the tremendous amounts of money being raised through these vehicles, higher than premium prices are being paid for the properties going into these partnerships. By some estimates, the total dollars raised through publicly registered and private limited partnership offerings (which rely on a specific exemption from full registration with the SEC) may reach figures approaching $30 billion during 1984.

To a large degree, tax shelter investors have been driven by an insatiable desire for what some brokers call "riskless transactions," that is, invest-

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ments that project aggregate tax deductions in excess of twice the investment, enabling the 50 percent marginal tax bracket investor to more than offset his capital contributions strictly from "tax savings." However, what this simplistic characterization overlooks is that a portion of these tax benefits is merely deferred to a later year and will reappear as a tax liability when the transaction is culminated. Therefore, brokers selling tax deductions alone are in fact painting an incomplete picture if the potential future liability is not discussed alongside.

Tax legislation and its enforcement have been chipping away gradually at the tax benefits legitimately available to investors participating in tax sheltered limited partnerships. Many investors, brokers, and advisors have attempted, to various degrees, to ignore these changes, but this has become more difficult to do with each new law. The result is that some investment offerings continue to have substantial tax risks and to present potential penalty problems.

When considering a tax sheltered investment, it is important for investors to realize that tax loss and performance projections are just that: projections of future events that can (and often do) vary substantially from original expectations. Many investors are finding that a comparison of a particular general partner's actual track record vis-à-vis initial projections will sometimes uncover a disconcerting trend of overly optimistic forecasts. This comparative data should be requested and reviewed before a decision is made to invest in a particular tax shelter transaction. The investor should make sure that projections have been prepared, or at least reviewed, by a reputable accounting firm to insure accuracy and reasonableness. If the general partner prepared the projections with his own assumptions and without review, beware. The investor should be particularly wary of extremely high projected rates of return, since these numbers usually entail unrealistic expectations. What will happen if lower inflation results in much lower appreciation rates for these investments? After evaluating the best case (as presented in the general partner's projections), the investor should also take a look at the worst case.

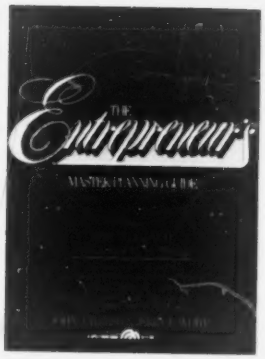
Tax Policy Changes

A somewhat more difficult problem this transition period is attempting to deal with is tax policy changes that could affect the investment. Although most major tax legislation is not retroactive in its scope, it can have a very real impact on the investment's overall performance when the partnership attempts to sell the investment property. With a new tax law change every 12 to 18 months becoming commonplace, you can pretty well assume this could have a potentially detrimental effect on the overall performance, and further discount very optimistic projections.

The transition period we are entering should portend more viable, economic oriented investment offerings with clearer tax economic forecasts and assumptions. Careful, patient investors will likely benefit. However, investors should not take shortcuts in evaluating a potential investment's merit. They should keep in mind their overriding financial and tax objectives to ascertain whether they will be served by participating in a specific investment. Finally, they should never make an investment decision concerning a tax shelter merely by reaction. That is, they should take their time, review their goals, seek qualified professional assistance, and make an informed, intelligent decision. Doing so will remove many of the inherent risks and problems that have haunted tax sheltered investors in the past, and will greatly increase the opportunity to invest profitability. □

B&E Business & Economic Review

Books



The Entrepreneur's Master Planning Guide: How to Launch a Successful Business

By John A. Welsh and Jerry F. White
Prentice-Hall, Inc., 1983, $11.95

The reviewer, **John J. Huebner,** is President and owner of a planning and management consulting firm in Greenville. He is enjoying the challenges and rewards of the entrepreneurial struggle. Huebner holds a Master's Degree in Planning from the University of Mississippi.

If you think you might like to start your own business and you're not sure how to go about it, you need this book. If you're in a restrictive career situation, perhaps in a highly structured organization, and you think you would be happier doing something on your own, you need this book. If you think owning your own business looks easy, you, too, need this book. *The Entrepreneur's Master Planning Guide* makes an authentic contribution to business literature. Aimed straight at demystifying the complexities of small business start-up, it makes a direct hit. To use current computer lingo, the book is user-friendly. It's designed for busy people on the go, who must cram their reading into busy schedules — sporadically, on airplanes, waiting for appointments, whatever. Each chapter is short and addresses a single concept. The whole book is put together in bite-size pieces. The writing style is basic, straightforward, no nonsense, and warm: not stuffy.

The book is based on a series of seminars held at the Caruth Institute of Owner-Managed Business at Southern Methodist University. The authors, John A. Welsh and Jerry F. White, have extensive hands-on experience in the real world of business. And, they draw heavily from 12 years of association with leading entrepreneurs who have made it.

This guide emphasizes the time honored requirements of tenacity and hard work and the need to make your own luck — but it goes beyond that to personality traits typically found in a successful entrepreneur: good health, a need to control and direct, self-confidence, a sense of urgency to get something done, and attraction to challenges, among others. If some of this fits, then you may be entrepreneur material — but read the book first.

Along this same line, the authors wisely fire a warning shot.

> Entrepreneurs are builders of new businesses, but are seldom good managers in large, structured organizations. Perhaps if entrepreneurs could be made fully aware of this before starting their new enterprises, they would be realistic enough to accept a graceful departure after achieving the success of a structured organization.

In other words, most entrepreneurs are skilled at converting imaginative ideas into profitable businesses. But the best entrepreneurs have a limited shelf life in a fixed situation.

This book is not entirely without its shortcomings. From time to time, and particularly in the later chapters, it tends to get bogged down into profit and cash flow forecasting. Its treatment of venture capital also tends to become redundant. All this departs from the central theme of the book, a how to guide. So skip over the parts you don't need now, and come back later if you like.

Finally, *The Entrepreneur's Master Planning Guide* is timely. Small business provides the majority of empioyment opportunities in this country. The same applies to the state of South Carolina, even more so. Elected leadership in South Carolina is beginning to seek ways to encourage small business formation. This book helps. □

The Entrepreneur's Manual

By Richard M. White, Jr.
Chilton Book Company, 1977, $17.50

The reviewer, **Herbert H. Hand,** is Professor of Management in the College of Business Administration at The University of South Carolina. A former entrepreneur, he has served as a consultant to more than 250 companies, ranging from Fortune 100 companies to one-person businesses. He has also authored or coauthored 6 books and monographs primarily related to smaller businesses, and more than 60 articles and papers.

The 1980's have been heralded as the decade of the resurgence of the entrepreneur in the United States. The entrepreneurial drive is most closely associated with the formation of a company to fulfill specific needs in a competitive marketplace. The advantages of being an entrepreneur are many, and offer a glimmer of hope to those individuals who chafe at the abundance of rules, regulations, restrictions, and norms that exist in the larger corporations. The failure rate of business start-ups, on the other hand, is abysmal. One source estimates that 33 percent of all business start-ups fail within the first year, 50 percent fail by the second year, and 80 percent fail by the fifth year. Dun and Bradstreet reports that, of all the business failures, approximately 92 percent are due either to managerial inadequacy or plain old incompetence. In many ways, the American dream is to become a *successful* entrepreneur. Clearly, the path is perilous!

Literally hundreds of books have been written on various aspects of entrepreneurship. As one reads the books, however, he or she soon detects a certain sameness to the bulk of the writing. In contrast, *The Entrepreneur's Manual* by Richard M. White, Jr., is a book that directly confronts the business failure problem from the standpoint of an individual who is clearly a dyed-in-the-wool entrepreneur. This manual is intended for entrepreneurs in the areas of manufacturing with nationwide distribution, nationwide industrial services, local retail sales, and local franchises. The majority of the material, however, is actually geared toward manufacturers of high technology products who eventually will seek venture capital financing.

The textual portions of the book are, for the most part, hard hitting, meaty, and keyed to typical and practical start-up problems that I have observed in hundreds of companies. A particularly nice feature is the liberal use of cameos — minicase reports of actual companies — to illustrate specific points in the text.

White believes the key issue to success in business is creatively following logical processes. All of us who have delved deeply into businesses — as either a practitioner, a consultant, or a committed teacher — know this is easier said than done! Edison's adage about 1 percent inspiration and 99 percent perspiration applies equally well to this excellent book.

The real starting point of *The Entrepreneur's Manual* is a discussion about the importance of selecting a growth, or glamour, industry in which to compete. It devotes two excellent chapters to the technical aspects of accomplishing this goal. The most interesting conclusion one draws from these chapters is that there are more opportunities out there than people capable of fulfilling them.

The second part of selecting the industry and business deals with choosing the founding team for the company. This assumes gigantic importance in view of the probably true statement in the book that 50-60 percent of the probability of success for any company depends on the caliber of its management team. This discussion is logically (and importantly) followed by an upbeat discussion of financial incentives for the newly selected Founder's Team. The financial incentive system theme is carried throughout the book — both as a motivating tool and as a portion of the control system.

White now turns his attention to establishing the accounting system for the business. (Most accountants probably will choose to skip this chapter because they will be so infuriated by its contents.) Basically, the accounting system is set up to permit not only the historical perspective of most accounting statements, but also the ability to look forward continually to project financial results. In addition, the accounting system has built-in "flags" to notify the founding team instantly of actual and potential deviations from the plan.

The preceding information is covered in the first half of the book. White recommends that the Business Plan be constructed only after those topics have been mastered. This logic is a refreshing change from the usual pablum found in books on the subject.

By now, the Business Plan can be a hard hitting, reasonably accurate document that may be used to secure venture capital or other types of financing. Several chapters are subsequently devoted to what whets the venture capitalist's desire to put money in a company.

The balance of the book (five chapters) is devoted to various aspects of marketing. In this, as well as the other areas, White makes very insightful and practical comments that often seem contrary to traditional "wisdom." For example, "salesmen often don't make good marketing men."

Particularly worthy of note are two chapters on product distribution and sales forecasting. Clearly, the chapter dealing with the critical task of setting up a nationwide distribution network for your products ranks as one of the better chapters, since most of us know that "nothing happens until a sale is made." White makes the monumental task of setting up a national distribution network appear to be comparatively simple. A lot of work, but simple . . .

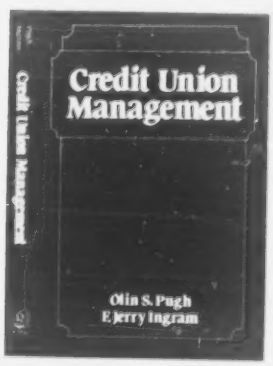
The chapter on sales forecasting is nicely tied in with the chapter on setting up nationwide distribution networks. You don't have to be much of a statistician to know that most statistical forecasting techniques are usually only slightly more accurate than an educated guess; in many cases, worse! Most of us who have been in sales or exposed to salesmen know that sales forecasts by the sales group often are "puff." White uses a comparatively new technique for forecasting sales that is reported to have an accuracy of plus or minus 5 percent. The accuracy of the sales forecast is, of coarse, inextricably interwoven with the Business Plan, the incentive systems, and the growth of the company.

Underlying this book is the premise that the reader is extremely well motivated, both creative and logical, very persistent, and willing to work long

hours. A second premise is that the path to success is built on developing a unique product, with tremendous subsequent emphasis on short-term goals and controls — essentially, that you maximize long-term performance by continually maximizing short-term performance. This represents a welcome change from the currently popular view that long-range or strategic planning is the answer to most of the ills that currently plague businesses. *The Entrepreneur's Manual* seems to have the unique capability of placing proper emphasis on *both* short-range and long-range considerations.

The third premise implicit in this book is that smaller businesses must compete in "niches," and that these niches appear and disappear over time. The entrepreneurial company, therefore, must be extremely responsive to these changes in market conditions.

The Entrepreneur's Manual is "must" reading for anyone who has aspirations of being a true entrepreneur. □



Credit Union Management

By Olin S. Pugh and F. Jerry Ingram
Reston Publishing Company, Inc., 1984, $26.95

The reviewer, **Thomas E. Delk**, has been President of the South Carolina Credit Union League since 1974. He has a 26-year background in consumer finance, commercial banking, and the credit union movement.

Credit Union Management is an excellent account of the origin and historical development of credit unions. It gives substantial coverage to their earliest beginning in mid-nineteen century Germany, but places major emphasis on growth during the most important period, 1966-'80.

This book does not offer (as its title implies it does) textbook information or instruction that would enhance an individual's technical knowledge and improve his skills to the point of making him a proficient credit union manager. The subtitle, "Credit Unions: A Movement Becomes an Industry," more aptly describes the book's content and thus fulfills the reader's expectations.

While not a textbook on credit union management, this book does offer, in a single source, a wealth of information that will dramatically improve a person's understanding of these rapidly expanding financial cooperatives. *Credit Union Management* is filled with valuable charts and statistics that record the explosive growth of modern credit unions, and vividly shows how they have responded to economic, technological, social, and political changes.

Drs. Olin S. Pugh and F. Jerry Ingram, both professors in The University of South Carolina's College of Business Administration, cover the entire spectrum of how and why credit unions were originally started; how one can be organized today; the importance of the common bond practice; the role of the volunteer worker and the official; and how credit unions are controlled and supervised. They also take an in-depth look at the part credit unions play in our national financial system and how they fit into the rapidly growing consumer credit market.

Many people will reject the authors' contention that the credit union movement has undergone a transition or evolved into an industry. Such, however, is a reality traditionalists must come to grips with, and *Credit Union Management* presents a good case for the industry side.

The period Drs. Pugh and Ingram focus on supports their contention that credit unions have indeed shed many of their philanthropic trappings and assumed the bottom-line-oriented image of an industry. Many a long-time credit unionist will contend, however, that both philosophies can exist in the credit union institution and each can be served without offending the other.

The uniqueness of credit unions that separates them from other financial institutions involves several important features. First, credit unions are run by volunteers, i.e., their Directors, committee people, and many other officers serve without pay. Secondly, they are democratically controlled: each member has one and only one vote, regardless of the amount of deposits he or she may hold. And, finally, credit unions do not serve the general public, but are restricted to serving their members, who have a common bond.

The authors acknowledge these differences, but counter with the fact that a high and growing percentage of credit unions now have full-time staffs and are no longer solely reliant on volunteer help. They also point out, quite accurately, that credit unions, for the most part, are offering a complete line of consumer financial services. The fact that many of the nation's credit unions are engaged in programs such as checking accounts, ATM services, credit cards, and mortgage lending only demonstrates their ability to provide the variety of services members demand. Just because the services are delivered by electronic means does not dilute the credit union purpose and automatically transfer it from the philosophical realm to the industrial arena.

Credit Union Management takes a good look at the future of credit unions and how they will fare in the hotly contested consumer finance market now dominated by commercial banks. It points out that several single banking institutions (Citicorp, Bank of America, and Chase Manhattan) hold more assets

than the entire credit union industry. It emphasizes, however, many positive aspects of credit unions and suggests that capable management will protect and improve its position from a competitive standpoint.

Credit Union Management is a book the movement industry has been needing for a long time. It is a valuable source of information that will add to the effectiveness of those who serve credit unions in both professional and volunteer capacities. Anyone interested in the nation's economy and its numerous components will find this book interesting. It will have a special appeal for those people just wanting to know more about — credit unions. □

Books Briefly

Compiled by Dwight Gardner, Business Librarian, College of Business Administration, The University of South Carolina.

Ogilvy on Advertising

By David Ogilvy
Crown Publishing, 1983, $24.95

The author, one of the true pioneers of modern advertising, dispenses the wit and wisdom gained from his many years of experience. He covers all aspects of the advertising business, with advice on how to run an agency, write effective copy, select the appropriate media, and even how to get a job in advertising. The text is handsomely illustrated with examples of ads and commercials.

A Complete Manual of Professional Selling

By Vince Pesce
Prentice-Hall, 1983, $8.95

This book will benefit anyone who is starting a career in sales and needs some assistance in becoming a professional salesperson. Covering the selling process, with an emphasis on developing one's personal communications skills, it also contains numerous self-improvement check lists and a glossary of specialized sales jargon.

White Collar Waste: Gain The Productivity Edge

By Val Olson
Prentice-Hall, 1983, $16.50

The author sums up the problem of white collar productivity with his "4-8 Theory." Stated simply, it is that while white collar workers are paid for eight hours work each day, their productivity level is closer to four hours of work. To remedy this situation, Olson advocates getting control of the work in an office, eliminating any backlogs, and always stressing efficiency — not speed — when measuring the unit's productivity. Before management can profitably automate an office, it must first eradicate any 4-8 tendencies from its operation, he emphasizes.

Word Processing for Executives and Professionals

By Timothy Foster and Alfred Glossbrenner
Van Nostrand, 1983, $17.50

This book focuses on the word processor as a communications tool that can be used to increase executive productivity. It covers the available hardware and ~~software~~, and includes suggestions on selecting the right equipment and on appropriate applications of this new technology.

Prescriptions for Prosperity

By Eliot Janeway
Times Books, 1983, $19.75

Here is some advice on curing America's economic ills from a popular author and economist. Arguing that any viable solution must take political, as well as economic, factors into consideration, Janeway offers 18 prescriptions for national prosperity, dealing with such issues as national defense, foreign trade, energy issues, and the banking system. He also includes prescriptions for personal prosperity.

Selection Interviewing: A Management Psychologist's Recommended Approach

By Bradford Smart
John Wiley, 1983, $24.95

This manual examines in detail the process of conducting in-depth interviews. It underlines the importance of carefully planning and structuring the interview to yield the maximum amount of valid information about the candidate for the position. Areas covered include designing the application, establishing rapport during the interview, conducting verification checks, and the best ways to inform candidates of interview results. □

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Alice Manufacturing Company
Allied Chemical Corporation
American Federal Savings and Loan Association
American Mutual Fire Insurance
Anchor Continental, Inc.
Andrews Bank & Trust Company
Arcadia Foundation
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BUSINESS & ECONOMIC REVIEW

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Editor's Desk

Women In Business

Robin Ridgell

From time immemorial, women have worked. For centuries, however, most women worked mainly at household or farm tasks. Things are different today. Spiraling inflation and soaring divorce rates have pushed more women into the workplace. In the 1980's, every other woman in America works outside the home.

Entrepreneurial careers have beckoned many of these women. Over the past decade, the number of self-employed people has increased three times as fast for women as for men, according to the United States Bureau of Labor Statistics. In 1972, only 4.6 percent of American businesses were owned by women, but a 1981 study by the U.S. Small Business Administration projected that one in four businesses was owned by women.

Of the 126,000 businesses in South Carolina, 25.4 percent are female-owned. Last month, the South Carolina State Development Board, charged with recruiting and developing industry and business in the state, sponsored a statewide conference on women and entrepreneurship.

With these facts and trends in mind, this issue of *Business & Economic Review* presents a special section devoted to Women in Business. It contains a variety of information on management styles, pay, the entrepreneurial woman, and other topics we hope will interest *all* business people — men and women alike.

Jan Collins Stucker

University President: James B. Holderman; **Dean, College of Business Administration:** James F. Kane; **Director, Division of Research:** Randolph C. Martin; **Editor:** Jan Collins Stucker; **Associate Editor:** Virginia Ann Van Seters; **Art Director:** Robin Ridgell; **Editorial Board:** Jack Bass, The University of South Carolina; Donald Collier, First National Bank of Orangeburg; Elliott E. Franks III, Office of the Governor of South Carolina; Cynthia Gilliam, Semaphore, Inc.; Jane Greer, Riegel Textile Corporation; Rod Hull, Allied Corporation; Eugene A. Laurent, South Carolina Budget and Control Board; Cathy B. Novinger, South Carolina Electric & Gas Co.; Olin S. Pugh, The University of South Carolina; William D. Workman, Jr., Retired Journalist. **Business & Economic Review** is published four times a year. Its purpose is to inform the business professional of new and existing trends and techniques that will improve the management of business organizations. The magazine also seeks to discuss current business and economic topics of particular interest to South Carolina and the Southeast. The *Review* is published by the Division of Research of the College of Business Administration, The University of South Carolina, Columbia, South Carolina 29208. Opinions expressed are those of the authors, and are not necessarily those of the Division of Research or the university. **Correspondence:** Send all correspondence and manuscripts (two double-spaced copies, plus a short biographical sketch) to The Editor at the above address. Telephone (803) 777-2510. **Member,** Association for University Business and Economic Research.

The Entrepreneurial Woman

In the past 10 years, the number of self-employed women has increased 3 times as fast as the number of self-employed men. They sometimes face different problems, but the motivations of male and female entrepreneurs are identical: the need to achieve, the desire to be independent, and economic necessity.

L. Elisabeth Beattie

Among today's more startling business statistics are these: nearly 50 percent more women were self-employed in 1980 than in 1970; women-owned businesses make up the most rapidly expanding sector of the small business community; and women now own over 20 percent of the nation's businesses — a percentage that translated into more than $40 billion in revenues between 1977 and 1982, the period in which the number of self-employed women in the United States increased from 1.7 million to 2.3 million. Finally, more than 1,500 women already own and direct multi-million dollar businesses nationally.

These statistics startle because their appearance in *print* is sudden. The impact of entrepreneurial women on the business world, which is being compared to the effects of the immigrant wave of the past century, has received little publicity until now — a decade *after* women have accounted for a 62 percent increase in the civilian labor force.

Charlotte Taylor, writing in the September 1983 issue of *The Entrepreneurial Economy* ("The New Immigrant: The Emerging Woman Entrepreneur"), is among the business analysts and social historians distinguishing parallels between the women entrepreneurs of the 1980's and 19th century immigrants. She observes, "Women — like the immigrants of the past — are increasingly opting to use their wits in the marketplace."

Best Road

Taylor's implication is clear; with women still earning 59¢ for every dollar earned by men, and with only 2 percent of women's salaries nationwide exceeding $25,000 annually, more and more women are seeking entrepreneurship as the best road to economic and career success. The risk factor of entrepreneurship for women is diminished when women feel they literally have little to lose by becoming self-employed.

Elizabeth Majors, independent clothing consultant and owner of the Columbia, South Carolina, consignment clothing shop, déjà vu, felt she had little to lose when she and several other women opened their business in 1982. Shortly thereafter, she bought out her partners and now has "complete control." She says, "Although I probably could have made more money by working for someone else, I would not have had as much control of my life. Control is very important to me."

Majors views her decision to become entrepreneurial as being geared more to her personality than her gender. "It's hard for a woman to make the decision to become entrepreneurial, but it's equally difficult for a man. The toughest aspect of going into business for yourself is having to live without a salary as the business gets off the ground." [This could take anywhere from several months to several years.]

Yet, Majors' need to control her destiny is a result of her belief that "American women should be raised to support themselves for 40 years."

Indeed, divorce rates demonstrate that half of all marriages do not last; and cost-of-living increases have made work outside the home an economic necessity for most married, as well as single, women. Since the average 20-year-old woman in the 1980's can anticipate spending nearly 30 years in the work force, women are seeking the kinds of careers that will allow them those elements of control and choice that will lead to career contentment and financial security.

Ginny Andrews, owner of Columbia's Andrews Travel Service, originally opened her agency with her husband, in 1976. The Andrewses divorced, and Ginny became sole proprietor of the business. Now Andrews Travel Service boasts one of the largest sales volumes of all travel agencies in South Carolina.

"Not having to answer to anybody" is the most satisfying aspect of entrepreneurship for Andrews, but she also

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says her earnings are far greater than they would be were she working for anyone else in her field.

No Negative Aspects

"There are no negative aspects to owning my own business," says Andrews, "although I do feel that I could not have succeeded as an entrepreneur had I had young children or a husband at home. Women entrepreneurs *do* have the added burden of having to attend to the domestic as well as the business side of life; men can put so much more time in their businesses when they have wives to worry about keeping house."

Direct sales and service operations (excluding farms) currently constitute the greatest number of women-owned businesses, and service-oriented businesses are forecast as the largest business and economic growth area for the future.

Women are successfully competing in businesses that have traditionally been all but the exclusive territory of men. Mary Williams, for example, is the owner of Southern Adjustments, a Columbia, South Carolina-based collections agency.

"I employ four people and turn over $3 million in business annually," says Williams, who, after less than two years in business, is in the process of incorporating.

"I like dealing with people, I like being my own boss, and I like competition," says Williams. "Clients or business associates who may not at first take me seriously because I am a woman in a field often stereotyped as being dominated by strong-armed men always change their attitudes after talking to me for five minutes. They know I can get results as well as, or, even better than, any man."

Like Majors and Andrews, Williams believes any business-related problems that may develop with employees or clients are difficulties inherent to all businesses, transcending any consideration of gender.

Single Biggest Problem

One such common problem is financing, often *the* single biggest problem in opening a business.

"One banker denied my loan application due to what he considered my 'lack of security,'" says Williams. "He didn't consider my track record in collections; that in itself should have been collateral." Yet, Barry Slider, Vice President for Commercial Loans at South Carolina's Security Federal Savings and Loan Association, admits to being "almost prejudiced in favor of commercial lending to women.

"In my previous position as branch manager of a commercial bank, I had a number of women apply for loans," says Slider, "and they all received them because every woman who came to me came well-prepared, with a carefully thought out loan package. It has been my experience in general that women who apply for loans are usually far better prepared than men who apply for assistance."

Slider can only speculate as to whether the entrepreneurial woman's loan package preparation is due to a feeling on the woman's part of needing to be superior even to compete in the still male-dominated corporate world, or whether it is due to other, unrelated factors. But he will say that in his nine years as a banker, he has found "women to be the driving force in most small businesses.

"When I'm evaluating loan applications to finance husband and wife-owned businesses, I always feel a corporation is only as good as its management *team*. I look at the team as well as the financial statements. It is generally the woman who convinces me the loan is an acceptable risk."

Majors, Andrews, and Williams attribute their successes not only to an unshakable belief in their own abilities to excel, but also to the support of friends, family, and, in Majors' case, spouse — and an ability to ignore or discount individuals and attitudes that could sabotage success. When questioned about people who may not have supported their decisions to be entrepreneurs, all three women said there were no detractors "that mattered."

There is no doubt that women *are* succeeding as entrepreneurs, but the raw data -- the numbers alone — do not indicate *how well* women are succeeding. Are women, in fact, adjusting *emotionally* and *socially* to their newfound roles as entrepreneurs?

Women Ill-Prepared

Ruthann Fox-Hines, a Counseling Psychologist at The University of South Carolina's Counseling and Human Development Center and a partner in the privately owned Columbia counseling firm Resource Associates, Inc., says that about 10 percent of her clients are entrepreneurial women. She sees the advent of self-employed women as a positive phenomenon, but one for which many female entrepreneurs are ill-prepared.

"Little girls are taught that by working as hard as they can in school they will be recognized and rewarded. When they grow up and become entrepreneurial women, they still think that hard work will result in rewards and success. In the adult world, there is no teacher [to give rewards]. And it takes more than hard work to cut it in the business world."

"Women-owned businesses make up the most rapidly expanding sector of the small business community."

"Women often find that any volunteer work they did while unemployed has earned them skills valuable to an entrepreneur."

Elizabeth Majors, owner of déjà vu, a clothing consignment store in Columbia, South Carolina.

According to Fox-Hines, women need to learn that networking is the answer to entrepreneurial success. "Boys learn to play with the team spirit. They grow into men who know the value of politicking, of selling their ideas. Women need to spend less time working and more time networking with colleagues and peers in other fields."

Another difficulty Fox-Hines focuses on with her business-owner clients is the isolation factor inherent in most entrepreneurial positions. "Everyone needs support — the support of their peers," says Fox-Hines. "That is how people validate themselves and their ideas; individuals isolated from peers often doubt themselves and their abilities."

Fox-Hines notes that other problems peculiar to entrepreneurial women include feeling guilty, because their mothers may have provided a traditional role model stressing the importance of a domestic life and nurturing; husbands who display passive/aggressive behavior, indicating a lack of real support; and being emotionally still little girls, "playing" business. This last sort of woman may wonder why she is not being taken seriously in her work, while she speaks in a "little girl voice" and dresses in attire inappropriate to her role.

Being Indefatigable

Adele Kaplan, Director of New Jersey's Small Business Development Center, believes that in many ways women are culturally better-prepared for entrepreneurship than are men. "You have a better chance for success if you're indefatigable," says Kaplan. "Women are more amenable to taking on all kinds of tasks."

Mary Williams agrees, "I wouldn't be where I am today if I hadn't been willing to sweep the floors and move the furniture as well as take the bows."

Many of Kaplan's pilot projects relating to small business development in New Jersey currently serve as models for President Reagan's National Initiative Program in Support of Entrepreneurs. "The most important thing for

women in business for themselves to remember," says Kaplan, "is that they should know and research their field thoroughly *before* opening their doors. Winging it is for the birds."

U.S. Treasurer Katherine Ortega, a former member of President Reagan's Advisory Committee for Small and Minority Business Ownership, concurs. Speaking about women-owned businesses, she states, ". . . many business failures [are] not caused by inadequate capital investment but . . . by lack of management experience."

Experience for successful entrepreneurship, however, continues to encompass imaginative, expanding definitions. In her book *Entrepreneurial Mothers* (Rawson Associates, 1984), Phyllis Gillis writes, "women's traditional values — growth, nourishment, and commitment — are precisely the characteristics . . . necessary for successful managers, leaders, and organizers today." Gillis stresses that the importance of a woman's success as a volunteer is crucial to her success as an independent businesswoman.

Women who have withdrawn from the work force while raising children or attending to other interests or obligations often find that any volunteer work they did while unemployed has earned them skills valuable to an entrepreneur. The ability to test areas of interest, the certainty of business contacts, and the possibility of serving an organization as an officer are all dividends of volunteerism that prepare women for leadership roles if they choose to reenter the work force as entrepreneurs.

Although the majority of studies attempting to profile the emerging entrepreneur are based on surveys of male business owners, a study by Robert D. Hisrich and Candida Brush, "The Woman Entrepreneur: Management Skills and Business Problems" in the January 1984 issue of the *Journal of Small Business Management,* explores the specific case of the woman entrepreneur. This study attests that women business owners *do* have problems peculiar to their gender in starting businesses, the main one being an inability to obtain loans, due either to sex discrimination or the lack of an established credit history.

Similar Motivations

Hisrich and Brush also refer to studies emphasizing the similarities in motivation for entrepreneurs of both sexes. "The need to achieve, the desire to be independent, the need for job satisfaction, and economic necessity" are documented traits of women entrepreneurs. Such findings would suggest that male and female entrepreneurs possess similar motivations and parallel personality traits.

Ongoing research expands daily the sociological data surrounding women entrepreneurs. For example, a research proposal by Beth Freeman, a doctoral student in The University of South Carolina's College of Business Administration, explores the creativity level of successful entrepreneurs. Studies like Freeman's may aid researchers, as well as entrepreneurs, in determining who is likely to succeed as a business owner.

Today, it is simply important to note this decade's most significant phenomenon in entrepreneurship: in the last 10 years, the number of self-employed women has increased 3 times as fast as the number of self-employed men. Businesses owned by men currently produce an average of 3½ times the yearly revenue of businesses owned by women, but income earned by entrepreneurial women is gaining at a faster rate than is income earned by self-employed men. □

The Managerial Woman

A woman who has made it to the top rung of management talks about male and female managerial styles (there *are* differences), family concerns, competition, mentors, and stereotypes. It's all part of her day.

Cathy B. Novinger

Women may have an advantage in today's business world: we are still, to some degree, novelties; we are noticed; and we are more apt to be remembered.

Women at the managerial level are noticed especially. Do our managerial styles differ from those of men in management? Do we need the same kind of managerial skills as men? Do we place our careers before our families? Do women in management still face negative, stereotyped attitudes? Do women in management need to use mentors more often? Should women be competitive? These are some of the questions I'm often asked as a woman in management at a large Southeastern utility company—a woman who began in the clerical ranks and advanced to the officer level.

Here are some of the answers I give, answers that come from the real life, personal experiences of my 14-year career.

One abstract I never overlook is luck: being in the right place at the right time. Many successful people believe in luck. Recently I read a news clipping about Marisa Bellisario, who has risen to the top of Italy's leading telecommunications manufacturer, Italtel. In the article she says, "I don't underestimate my abilities, but I owe a lot to luck."

I, for one, believe there's something to this "luck" thing.

Cathy B. Novinger is Vice President and Group Executive/Administration, for South Carolina Electric & Gas Company.

Some Stylistic Differences

Second, there are some differences in male and female managerial styles. Women, for example, including myself, tend to have the attitude, "Give it to *me* and *I* will do it," instead of delegating responsibility or using the old "team" concept to complete a project or assignment. In my view, if a woman cannot or will not move into the teamwork approach of accomplishing tasks, she will find promotions few and far between.

This lack of teamwork approach originated, I believe, when we, as young girls, participated in solitary activities — ballet, piano, tap, swimming, diving, or whatever — while our brothers played football, baseball, basketball, soccer — all team-related activities. At times, the quarterback and the center on a football team may very well dislike each other. They may even fight in the locker room after the game. But you'd better believe that during the game, they are working together diligently to get that ball across the goal line.

Men and women alike must associate themselves as part of a team and even work with people they may dislike, or at least not respect. It's a lesson most men already know, but that some women still must learn.

In general, however, there do not seem to be huge gaps of difference between the management styles of men and women. In my view, the higher up a woman moves in an organization, the more similar is her management style to that of her male counterparts. Certain management characteristics (the ability to plan, organize, direct, staff, and control, for example) are necessary to make it to the top. If you have done so, it's because of your good management skills. On the highest levels of management, male or female management skills are quite similar.

At somewhat lower levels of management, however, I do see minor differences. Women sometimes seem to be more sensitive to the needs of subordinates and colleagues; perhaps they are a little more compassionate. This could be why women executives often can be found in the personnel/human resource departments.

There also seems to be a tendency for women managers to utilize the participatory management style that appears to be so successful in Japan. This participatory or consensus approach — as opposed to the authoritarian approach that appears to be more common with male managers — could be per-

"If *he* has a problem with you 'because you're a woman,' then let *him* go home and worry about it, not you."

ceived by male counterparts as a weakness. Then, again, it could be a style they might consider imitating.

Careers Before Family?

Third, do women in management put their careers before their families? In my experience, the answer is no. It's not what comes *first* — job or family — but a balancing procedure. One day, it may be necessary to place a job commitment before a family obligation. The next day, it may be more important to attend your son's ball game than a business reception. The key word is "balance."

Fourth, do women in management today face stereotyped attitudes that may impede their careers? Yes, women may very well encounter the "you're a woman, so your job is tokenism" attitude, or the "because you're a woman, you're not as competent as a man" attitude, or variations of the above. The best advice I can give on this subject is that the "because you're a woman" attitude should be someone else's problem — not the woman's. If *he* has a problem with you "because you're a woman," then let *him* go home and worry about it, not you. Be certain, however, that it's not something else. Women shouldn't be too eager to use the "woman" tag as a scapegoat.

Fifth, is the mentorship approach available to women? My answer is, more often now than in the past. This sponsor concept has been going on successfully for decades in the business world. In the past, however, it has usually been a man-to-man relationship.

The President of an organization may have spotted a bright young man early in his career, and recognized outstanding qualities. The executive may then have taken the young man under his wing, taught, directed, and molded him into a corporate leader.

Beginning to be Used

This method is now beginning to be used to assist women exemplifying outstanding managerial potential to move ahead more quickly in an organization. Some companies — my employer included — are even formalizing this process. Officers select and sponsor a "high achiever," then use the mentor approach in a structured fashion.

Women need not be shy about accepting assistance from mentors throughout their careers. The attitude that "I can do it myself" may be respected, but it may also accomplish fewer and slower results.

Sixth, a word about competition. "They" say competition is healthy, but being competitive on the job may lead you astray. Quite often, when you find yourself "competing" with an associate, you find yourself striving for that person's goal, and not your own. My suggestion, especially for women, is to compete with *yourself* to attain self-established goals. A competitive woman may well be perceived as a nuisance, not a challenge. □

The Greenville Woman

Jan Collins Stucker

When Joanne East was 7, she opened her first business: selling crabs she caught in Chesapeake Bay. Buoyed by her success, she learned to bake cream puffs and other pastries and offered them for sale to summer residents and tourists in her native Virginia. Then, she set up her own ironing business, pressing clothes for 10 cents an item.

"I guess I've always been an entrepreneur," says Joanne East Batson, now 36 and one of the owners of Photo Graphics 4, a Greenville graphic arts firm that she and a partner founded in 1977. Mrs. Batson was named Greenville Small Business Person of the Year in February by the Greater Greenville Chamber of Commerce — the first woman to be so honored.

This July, Joanne Batson and two women partners launched yet another entrepreneurial venture: *The Greenville Woman*, a 48-page, slick-paper magazine designed to appeal to women in the upstate.

"It's not aimed at only professional women or only homemakers," says the energetic, blonde Mrs. Batson, "but at all Greenville women." The monthly magazine will have a cover story about a Greenville area woman, and will also include profiles on female entrepreneurs and female artists, plus columns on more than 20 topics, including finance, fitness, government, travel, real estate, parenting, and beauty. (The first run had 5,000 copies. The publishers hope for 25,000 subscriptions within two years.)

Jan Collins Stucker is Editor of the *Business & Economic Review*. A former reporter for newspapers in Michigan and South Carolina, Ms. Stucker also was a business writer for *The Charlotte Observer*. She is a correspondent for *The Economist* of London, and is a free-lance writer for a number of magazines and newspapers. She studied business and economics at Harvard University in 1979-'80 as a Nieman Fellow.

Same Formula

The publishing venture obviously will be different from Photo Graphics 4, which Mrs. Batson and partner Eileen Hunter started by pooling their combined life savings of $2,000. But the women intend to follow essentially the same six-pronged formula they devised in 1977 when launching their first business.

First, they wrote a good business plan and followed it carefully. "Go to a good lawyer or CPA for help, if need be," advises Mrs. Batson. "It's worth every dime to get a good plan." Then, revise the plan periodically, she says. Don't stick it in your desk and forget it.

Second, they chose a business about which both were thoroughly knowledgeable. The women, for example, met at a Greenville printing company where Mrs. Hunter was head of the Production Department and Mrs. Batson worked in Sales and Design. Both of them had also worked in advertising. In addition, Mrs. Batson had an art degree from Furman University, while her partner had experience as a color technician from an earlier job in a photography lab.

"We looked at each other one day," Mrs. Hunter told *The Greenville Piedmont* in February of 1982, "and said, 'Why are we doing this for somebody else?' "

Third, they carefully scoped out their market. They believed they could find a niche as an arm for in-house art departments for large corporations, and as a graphic design department for small businesses that needed more than a print shop, but couldn't afford an advertising agency. They turned out to be right.

"It's not uncommon to work 70- and 80-hour weeks," says Joanne Batson. "So you must be able to keep up the pace."

Fourth, they had (and have) virtually unlimited energy and drive. They're also healthy. "It's not uncommon to work 70- and 80-hour weeks," says Mrs. Batson. "So you must be able to keep up the pace."

Fifth, they had enough capital to start, although just barely. With all the money they had in the world — $2,000 — these two women opened Photo Graphics 4 in the basement of the Hunter home in Greenville. They didn't go to a bank at first for an additional loan, because they had no collateral to pledge. Today, Mrs. Batson would do this part differently. "I'd strike up a good relationship with my banker," she says. "I'd borrow some money, even if I didn't need it, just to get a banking relationship going." The women did get a $5,000 bank loan two years after start-up, which enabled them to move to a

studio on South Main Street in Greenville. Today, Photo Graphics 4 occupies a refurbished house on North Main Street. *The Greenville Woman* staff is housed upstairs.

Sixth, they used community involvement, including projects for the local Chamber of Commerce and churches and other organizations, to help make valuable business contacts for selling their product. "We did a lot of volunteering, but it was really a subliminal marketing of ourselves," confesses Mrs. Batson.

Never Missed a Paycheck

Photo Graphics 4 was successful from Day 1. It now employs 5 workers (up from the original 2), and has increased its gross revenues 12-fold in 7 years. The firm has never missed a paycheck.

Mrs. Batson credits her "creative" mother and her entrepreneurial father (he was a self-made man who started his own air conditioning and heating business) with being her role models. "From them, I always learned to try harder," she says. Large corporations, she adds, have always scared her. "I didn't like the fact someone had control over me."

Born in Richmond, Virginia, Mrs. Batson went to junior college in her home state, then moved to Greenville in 1971. Later, with an eye to opening her own business, she enrolled in MBA classes at Furman in the mid-1970's to learn specific skills, such as accounting and statistics.

Once Photo Graphics 4 was successful, it didn't take her long to begin conjuring up a new project. *The Greenville Woman* is the result. Mrs. Batson, Mrs. Hunter, and the third partner in the magazine venture, Beverley Woody, expect to succeed as publishers of the women's magazine. Their five-year plan calls for them to produce a variety of publications, perhaps eventually including similar women's magazines in Spartanburg, Columbia, and Charleston. (The target audience for the magazine is middle-to-upper-income women who may have careers, but also have family interests and keep up with developments in their city.)

Mrs. Batson, who is active in several business and industrial organizations, including the Greenville Chamber of Commerce's Small Business Council, says the rewards of small business ownership are many. "You can say, 'I did it my way,'" she says. "If I fail, *I* did it. If I succeed, *I* did it."

There are sacrifices, too. Her hectic pace doesn't leave as much time as she would like to spend with her husband and their two cats. And, she rarely takes a vacation.

"But, where could I be President after only seven years — except in my own business?" she asks. □

For More Information

Women interested in obtaining information and/or counseling about opening their own businesses may contact:

- U.S. Small Business Administration
  (South Carolina's field office is located in the Strom Thurmond Federal Building, 1835 Assembly Street, Columbia, South Carolina 29201. Telephone (803)765-5131. Contact Sally Kühne.)
- The Frank L. Roddey Small Business Development Center (private counseling and development courses)
  College of Business Administration
  1710 College Street
  The University of South Carolina
  Columbia, South Carolina 29208
  (803) 777-5118
- Business Assistance and Services Information Center (BASIC)
  South Carolina State Development Board
  Bankers Trust Tower
  1301 Gervais Street
  Columbia, South Carolina 29202
  (803) 758-3046 (toll free outside of Columbia — 1-800-922-6684)
- U.S. Department of Commerce (publishes business information and statistics)
  14th and Constitution Ave., N.W.
  Washington, D.C. 20230
  (202) 377-2000
  or
  1835 Assembly Street
  Suite 172
  Columbia, South Carolina 29201
  (803) 765-5345
- U.S. Government Printing Office (offers for sale a wide range of publications)
  Division of Public Documents
  Washington, D.C. 20402
- Dun and Bradstreet, Inc. (provides key financial ratios for small businesses)
  6923 Trenholm Road
  Columbia, South Carolina 29206
  (803) 787-7470

Equal Pay

Two economists studied the latest statistical data on why women continue to earn only about 60 percent of what men earn. Discrimination, they found, remains a contributing factor.

Irvin B. Tucker III and Louis Amato

Despite the Equal Pay Act of 1963, women continue to earn only about 60 percent of what men earn. This piece of legislation does not mean, of course, that there must be *no* pay differential between the sexes. It does require, however, that any unequal compensation reflect differences only in the *value* of *productivity*.

The difficult task, then, is to determine which differences in pay are discrimination and which are within the bounds of the law.

Two Interpretations

One who wishes to make a case for female discrimination may point to Labor Department statistics that show that there has been little change for years in the ratio of women's to men's earnings. Women working year-round at full-time jobs have received from 57 to 62 percent of what men receive over the last two decades. These data certainly appear to indicate that there is, indeed, discrimination in pay against women.

Another explanation for the earning difference between working men and women is given by Richard L. Lesher, President of the Chamber of Commerce of the United States. He says there are two basic reasons why women typically earn less than men. First, the average lifetime career for females is 11 years less than that for males. Second, the supply of job applicants forces wages down in such female-dominated occupations as clerical, nursing, and teaching. Women seek these professions, Lesher says, because they offer nonmonetary rewards in terms of part-time work and ease of reentry. Lesher concludes that no earning disparity is the result of sinister discrimination.

Irvin B. Tucker III and **Louis Amato** are Assistant Professors of Economics at the University of North Carolina at Charlotte. Tucker is also Director of UNCC's Center for Economic Education. Their shared research interests include industrial economics and public policy.

Research Evidence

To examine these two viewpoints of the gender pay gap, we used data from the head-of-household national sample collected in a panel survey conducted annually since 1968 by the Institute for Social Research at the University of Michigan. Using observations in this sample, we examined socioeconomic information for 3,038 men and 840 women employed in 1980.

As shown in the Exhibit, these data support the argument that women are *not* fairly compensated for their work.

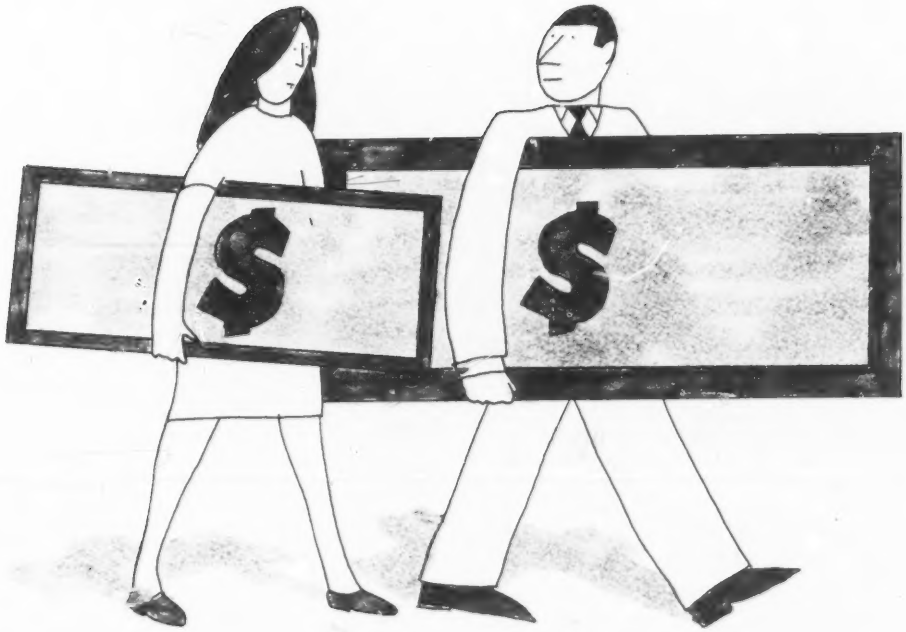
Hourly wage was chosen as the measure of compensation instead of annual income to avoid earnings differences due to variations in total hours worked during the year. Female and male wage rates among the selected variables are listed for comparison in the first two columns of the Exhibit, while the percentage of the female-male wage rate received in 1980 is given in column three. Since the females in our sample never earn parity with their male counterparts, the female-male percentage is always below 100 percent, whether the comparison is based on marital status, education, union status, occupation, or residence in a Standard Metropolitan Statistical Area (SMSA).

Our data suggest that the proportional disparity between female and male wages is smallest for women who are at least high school graduates, single, and reside in SMSA areas. Among occupational categories, the disparity is greatest for the professional, technical, and kindred class. *This finding suggests that women who become professionals are unable to avoid the effects of discrimination and may, in fact, confront the greatest discrimination.*

The percentage female-male wage ratio is virtually the same regardless of whether or not the average female in the study belongs to a union. It would appear that union work rules and seniority systems tend to promote female-male wage differentials for union members comparable to the differentials that arise when employees are not covered by collective bargaining agreements. Unions long have contended that unionization can play a major role in eliminating discrimination on the basis of gender. *Our findings, that there is virtually no difference in the female-male wage ratio for union members and nonmembers, suggests that unions are of little benefit in reducing gender wage discrimination.*

This interpretation of the wage rate data would not be valid if one applied Lesher's analysis. Based on his theory, the gender differences in wages shown in the Exhibit could be explained entirely by variations in the respective levels of certain socioeconomic characteristics. For example, the observed female-male wage rate percentages could be because males possess more years on

"Women who become professionals are unable to avoid the effects of discrimination and may, in fact, confront the greatest discrimination."



The Equal Pay Act of 1963 "does not mean that there must be *no* pay differential between the sexes. It does require, however, that any unequal compensation reflect differences only in the *value* of *productivity.*"

their current jobs, have more years of formal education, and/or work a greater number of weeks each year.

Testing Lesher's Hypothesis

To test this hypothesis, we used a statistical technique that estimates the relationship between wage rates and variables that influence the level of wages. Our technique employed simple linear regression to estimate an equation that expresses the relationship between hourly wages and the explanatory variables included in this study (i.e., years on current job, education, and occupation). We estimated separate equations for males and females, thus yielding two sets of regression coefficients for the explanatory variables. Each coefficient from the female (male) equation measures the relative contribution of that particular variable in determining the female (male) hourly wage. In order to estimate the female wage that would exist if females possessed characteristics identical to those of males, we took the males' mean characteristic for each variable and substituted these values into the female wage rate equation. This adjusted female wage has, therefore, been purged of gender differences in the characteristics included in this study.

Based on these estimated regression relationships, if we assume the women in our sample have the same average number of years on their current jobs as men (6.34), then their wage rate would be increased by 7 cents per hour. If both tenure and educational level were made the same for women, then their wage rate would increase another 18 cents per hour. Thus, by making stepwise adjustments for differences in tenure and education only, the estimated wage rate for females would be increased from $5.07 to $5.32.

As a final adjustment, if 33 percent of the women in our data set (the same percentage as men) were employed in the professional, technical, and kindred sector, the wages of women would be $5.64 per hour, or 67.2 percent of the male wage of $8.39 per hour. The remaining 32.8 percent represents the portion of female-male wage differences produced by all other factors that have not been taken into account in this study.*

EXHIBIT. Female and Male Hourly Wage Rate Comparisons for 1980

Control Variables	Female	Male	Percentage Female-Male
Marital Status			
Married	$4.40	$6.29	70.0%
Separated	3.26	4.30	75.8
Single	3.17	3.77	84.1
Education			
Less than high school gradua	2.03	4.02	42.2
High school graduate	3.27	5.45	60.0
College 1 or more years	4.76	7.91	60.0
Union Status			
Member	3.70	6.79	54.4
Nonmember	3.01	5.54	54.3
Occupation			
Professional, technical, and kindred	4.10	8.52	48.1
Clerical worker	4.23	6.52	64.9
Operations	3.19	4.72	67.6
Service worker	1.98	2.68	73.9
Residence			
Resides in non-SMSA	2.18	6.85	32.0
Resides in SMSA	3.81	5.31	72.0

Source: "1980 Panel Study of Income Dynamics." Data were collected from the head of household panel survey conducted by the Institute for Social Research at the University of Michigan.

Discrimination Exists

By controlling for variations between the sexes among three important variables that affect wages, we have narrowed the gap in our sample data by only about 7 percent. *Thus, our research indicates that wage differences between the sexes cannot be explained entirely by adjusting for other factors. The fact that a significant difference remains after making such adjustments supports the notion that discrimination is contributing to the observed wage gap.* □

FOOTNOTE

*Other studies that also find that the estimated female-male percentage becomes approximately 30 percent after applying regression analysis to control for gender characteristic differences include Malcolm S. Cohen, "Sex Differences in Compensation," *Journal of Human Resources* 6 (Fall 1971); Victor Fuchs, "Differences in Hourly Earnings Between Men and Women," *Monthly Labor Review* 94 (May 1971); B. F. Kiker and Henry L. Crouch, "Male-Female Wage Differentials," *Studies in Economic Analysis* (Spring 1981): 42-60; and Larry E. Suter and Herman P. Miller, "Income Differences Between Men and Career Women," *American Journal of Sociology* 78 (January 1973): 962-74.

Women-Owned Businesses

• From 1977 to 1980, the number of female-operated, nonfarm sole proprietorships increased to 2.5 million from 1.9 million, or 33 percent. The number of male-operated, nonfarm sole proprietorships during the same period rose to 6.9 million from 6.2 million, a gain of 11 percent.

• In 1977, female-operated firms represented 22.6 percent of sole proprietorships in the United States. By 1981, the share of firms operated by women reached 26.4 percent of the 10.5 million sole proprietorships in operation.

• The major types of female-operated businesses remain in the traditional areas of retail trade and services, particularly retail stores, personal services, and educational services. Since 1977, however, businesswomen have made modest progress in entering nontraditional areas such as manufacturing, finance, insurance and real estate, and agricultural services.

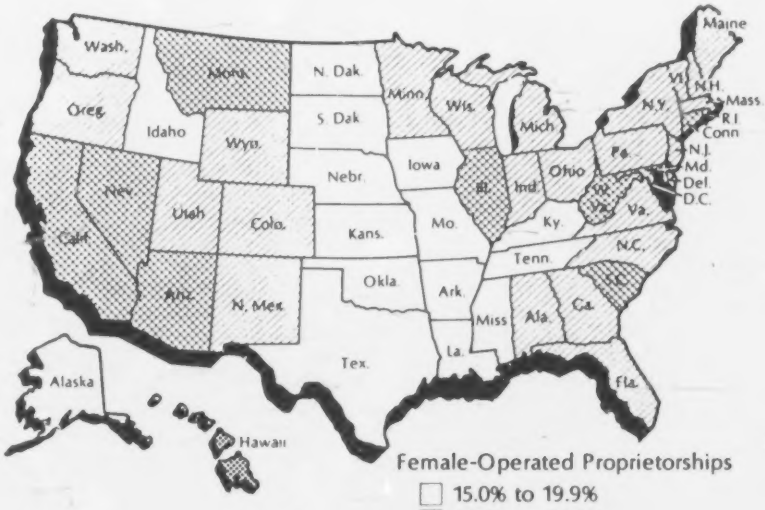
• Proportionately, female-operated businesses are more prevalent on the East Coast from Virginia to New England, the central Midwest states of Ohio and Illinois, the West Coast states of California, and Hawaii. The smallest shares of female-operated firms are in more sparsely populated rural areas, such as Arkansas, Oklahoma, North Dakota, and South Dakota.

• Progress of women in new areas of entrepreneurship may be limited by differences in the educational fields of study and job skills of men and women. Relatively fewer women have educational backgrounds in the physical sciences, engineering, and business, which are important to entrepreneurial endeavors today. Women also are underrepresented in managerial positions and highly technical and high-income sales jobs.

• Farms operated by females accounted for 8.5 percent of all United States farms in 1980, compared with 26 percent for nonfarm businesses. Similarly, the female-operated firms' share of receipts represented 3.9 percent of the farm receipts but 8.9 percent of the receipts of nonfarm sole proprietorships.

• Female-operated firms recorded their highest 1981 average net income in finance, insurance, and real estate. The average for this industry group was $3,886, or 55 percent of the $7,097 average of male-operated finance, insurance, and real estate businesses.

• In 1981, the average net income of female-operated firms was $1,937, or 30 percent of the $6,364 average for male-operated sole proprietorships. The lower average net incomes of firms operated by women are attributable to differences in types of businesses, as well as size and part- or full-time nature of the operations.



Source: U.S. Government Printing Office, 1981.

Excerpted from *The State of Small Business: A Report to the President.* Transmitted to Congress in March 1984. □

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Business and The Arts

There is a growing trend in American business to invest more time and money in The Arts. The benefits are legion: the nation is culturally enriched, while business ensures that a community's wellspring of creativity and talent remains adequate for business and industrial purposes. In a word, everybody wins.

Marshall Doswell

Just 45 miles southeast of Indianapolis, tucked amidst the tall corn of Indiana, sits Columbus, an industrial city of 35,000. It is not a typical small Midwestern city surrounded by farmland: it is decidedly different, and its uniqueness stems from the determination of local business leaders to create a stimulating, culturally exciting environment. They have succeeded.

Columbus boasts the most concentrated collection of contemporary architecture in the world. More than 40 public and private buildings, designed by some of the world's leading architects, give visual sparkle to the community. Each year, more than 40,000 visitors flock to Columbus to see what imaginative minds have done with schools, churches, banks, research centers, and public buildings that are not only functional but also breathtaking as works of art.

The prime mover in this remarkable achievement has been J. Irwin Miller, retired Chief Executive Officer of Cummins Engine Company, headquartered in Columbus. Max Andress, a former Mayor of Columbus, summed up Miller's philosophy several years ago.

Irwin Miller realized that if Cummins was to achieve greatness it would have to attract great people, the really outstanding young executives who could bring to Cummins from all over the world the ability and imagination, boldness and vision required to catapult the company forward. He saw that Cummins could not attract and hold these people unless Columbus became an exciting, interesting, culturally advanced community. Over the years, we have achieved some of this, with the help of Cummins and other industries in town, plus the community at large.

Street. **William McElcheran. This bronze sculpture satirizing the businessman is one of several similar works by sculptor McElcheran owned by Springs Industries, Inc.**

Marshall Doswell is Vice President-Corporate Communications for Springs Industries. His responsibilities for the last 22 years have included management of Springs' various art activities, which have won both state and national awards.

2000 Percent

What Cummins and other businesses have achieved in Columbus reflects a growing trend in American business to invest more time and money in The Arts. Since 1963, money given to The Arts by corporations, foundations, and federal, state, and local government has increased more than 2,000 percent. A recent study prepared for The Rockefeller Foundation reports that support of The Arts from these sources totaled $34 million in 1963, and $946 million in 1982, the last year for which figures have been compiled. *Nearly 75 percent of the 1982 dollars came from corporations and foundations.*

Many of the nation's largest concerns are strong supporters of The Arts: IBM, Chase Manhattan Bank, Xerox, Mobil Oil, Champion International, SCM Corporation, and RJR Industries. Their support ranges over such diverse art interests as dance, theater, opera, symphony orchestras, public radio and television, photography, exhibitions of painting and sculpture, craft shows, and private art collections. Major companies provide support to arts councils, museums, community arts programs, historic preservation groups, arts festivals, and libraries. Some even run their own art shows.

Wachovia Bank and Trust, based in Winston-Salem, N.C., owns more than 9,000 paintings, prints, and drawings. RJR Industries, another Winston-Salem-based concern, also has an extensive art collection, with an emphasis on the works of outstanding regional artists. Philip Morris, based in New York, has sponsored major exhibitions of painting, photography, and other art for more than 20 years. Liberty Life of Greenville, S.C., the textile center of the state, has built an extensive textile art collection. Liberty also owns hundreds of other art pieces, including silk-screens, graphics, and limited edition prints.

Springs Industries, based in Fort Mill, S.C., has sponsored a major regional art show for 26 years, with judges drawn from some of the largest and most prestigious museums in the nation. Each year, an exhibition of about 40 prize winners drawn from this show travels to museums, college campuses, and galleries in the two Carolinas.

Springs also sponsors national photographic exhibits and art posters and catalogs, working closely with such museums as the Museum of Modern Art and The Metropolitan Museum of Art in New York, the National Gallery of Art in Washington, and The Art Institute of Chicago. Exhibitions such as "Ansel Adams and the West," a four-part series on the work of French photographer Eugene Atget, and a major retrospective of the work of Alfred Steiglitz have been seen by thousands of museum visitors throughout the country. A fourthcoming exhibit sponsored by Springs, and mounted jointly by The Art Institute of Chicago and the Metropolitan Museum of Art, will focus on the memorable photography of André Kertész.

Classic textile designs from the Metropolitan's extensive collection are reproduced by Springs on bed sheets, bedspreads, quilts, and other products. This program has earned the Metropolitan more than $3.5 million in royalty payments since 1972, and enabled hundreds of thousands of average Americans to be exposed to art through museum adaptations in their homes.

Sound Business

Why do big companies, operated for a profit, spend money on The Arts? Is it an effort to win public approval? Is it a form of advertising, or a means of building corporate identity and boosting company awareness? Support of The Arts could, consciously or unconsciously, involve all of these motives. But there are even better reasons.

Courtesy: Springs Industries, Inc.

J. Paul Sticht, recently retired Chairman of RJR Industries, has put it this way:

There is surely *a sound business rationale for supporting The Arts.*

"In a very real sense, a business contribution to a museum, theater, or other art form is a business investment in the future . . . Support of The Arts is not philanthropy or corporate generosity; it's a prudent investment in survival and growth."

"Since 1963, money given to The Arts by corporations, foundations, and federal, state, and local government has increased more than 2,000 percent. Nearly 75 percent of the 1982 dollars came from corporations and foundations."

Mount Williamson, Sierra Nevada, From Manzanar, California **(c. 1944). Part of a major retrospective of the work of Ansel Adams, America's best-known photographer. The exhibition toured the nation for two years and was sponsored by Springs Industries, Inc. (Courtesy: The Museum of Modern Art, New York.)**

> Our experience here in Winston-Salem affirms that a community with a strong cultural base is also strong in other respects — its economic base, its educational system, its social stability.

Goldwin A. McLellan, speaking as President of the national Business Committee for The Arts several years ago, put it this way:

> In a very real sense, a business contribution to a museum, theater, or other art form is a business investment in the future, a legitimate business expense to ensure that the wellspring of creativity and talent remains adequate for business and industrial purposes. Support of The Arts is not philanthropy or corporate generosity; it's a prudent investment in survival and growth.

Irwin Miller, Paul Sticht, and Goldwin McLellan touch on the same basic theme: business cannot flourish in a cultural wasteland. Business is a part of the environment in which it exists. If that environment is culturally impoverished, business also will suffer.

Vitry (1925-'27). One of the photos of a four-part series on the work of Eugene Atget, a French photographer who died in 1927. The series was developed by The Museum of Modern Art in New York and was sponsored by Springs Industries, Inc. (Courtesy: The Museum of Modern Art, New York. Abbott-Levy Collection, partial gift of Shirley C. Burden.)

Increasingly, in recent years, surveys conducted by the Business Committee for The Arts have shown that *The Arts rival or exceed sports in popularity, and actually draw heavier attendance on a yearly basis than our major sports.* Business has begun to recognize this in a practical way. Like the industrial leaders of Columbus, Indiana, business executives throughout the nation realize that the bright young managers and supervisors and technical people they want to attract and hold demand an interesting and stimulating cultural environment for themselves and their families. So they're doing something about it.

Discerning business leaders are recognizing that if they do interesting things in The Arts and provide meaningful support for The Arts, they help provide their management, their employees, and the people in their communities with a stimulating atmosphere. On a national level, business support for The Arts provides the consuming public with culturally enriching experiences that would not otherwise be possible. This is not a waste of stockholders' money. It is a sensible investment in the creativity, imagination, taste level, and growth of future markets.

Inspiration

Perceptive chief executives have noticed that a strong corporate involvement in The Arts has made their managers more sensitive to the world around them, more aware of creativity, and more innovative and imaginative in their marketing and business planning. Art and artists identify trends, shifting ideas and values, and changing currents of thought. An involvement in The Arts enables business people and the consuming public to grow intellectually, to broaden their horizons, and to become more receptive and responsive to changing markets, changing needs, and changing times.

In "A Guide to Corporate Giving," published by the American Council for The Arts, Philip Morris expressed much the same feeling in a comment explaining why it provides financial support for The Arts: "The innovation, technology, and sensibility that contribute to corporate success all trace their inspiration to the works of creative artists."

Some observers of the growth of business involvement in The Arts predict that the 1980's will see the base of business support broaden. They believe that an increasing number of medium-sized and small companies will join larger corporations to provide greater support for The Arts, particularly at the community level. As this support deepens and reaches into smaller cities and towns, the cultural enrichment of the nation will grow, and this growth will be reflected in the tastes and values that influence our lives and decisions in the marketplace.

Winton (Red) Blount, former Postmaster General of the United States, hit it squarely when he said some years ago, "The answer to why business should be involved with The Arts can be stated shamelessly as plain, simple self-interest." □

Government and The Arts

Harriet Keyserling

When a line item appropriation for the Spoleto Arts Festival came up for discussion during a South Carolina Ways and Means Committee meeting earlier this year, someone asked plaintively, "When will they be self-supporting?" The answer, "probably never," was accepted without debate, and we moved on to another subject. State support for The Arts is growing across the country, and South Carolina has joined this movement with innovative programs and a respectable level of funding.

Although government support for The Arts is relatively new in America, it has existed since history has been recorded. When The Arts flourished, they were sustained by public authority. In Ancient Greece, Plato prescribed The Arts as being essential to the education of the ideal citizen; Aristotle urged the state to teach its members art for the use of their leisure. The art of the Parthenon was a direct charge on the treasury of Athens.

In 15th century Italy, artists emerged as honored citizens, supported by the state. Florence flourished under Lorenzo de Medici, who gathered artists in his courts and staged public pageants. Many works of Michelangelo and Raphael were sponsored by the Papacy. Most of what we know of past civilizations and cultures are their arts — sculpture, paintings, literature, drama, architecture — for they are all that remain.

Today, funding for The Arts is generous in most Western countries. In 1981, on a per capita basis, Great Britain spent $3.60, Canada $6.07, France $11.08. The United States was far behind, with $0.70.

Good Business

Why *should* government support The Arts? Aesthetic considerations come to mind first. The Arts open and expand our vision. They develop our senses. They provide a common language that can bring different peoples and cultures together in a world where hostility is the norm. They represent creativity, growth and imagination. But wait! These qualities extend beyond aesthetics and become *necessities* as we look to future economic growth. As our traditional industrial base weakens, we are going to need more and more creativity, vision, and imagination to compete in the high tec/computer revolution, to build a new industrial base, and to recapture economic leadership in the world.

Public support of The Arts brings economic benefits in many ways. The National Conference of State Legislatures (NCSL) created a Task Force, with members from every state, to study the relationship between The Arts and government. After three years of wide-ranging, hands-on study, we recommended increased state support — not only in funding, but also in implementing arts programs and policies. Our findings were:

- Support for The Arts is good business: each public dollar invested in The Arts multiplies by a factor of five.
- The Arts encourage economic growth.
- The Arts are an industry with all of industry's benefits *plus* the cultural "windfall" for the people.

Rep. Harriet Keyserling, D-Beaufort, is Cochairperson of the Governor's Task Force on The Arts. She has been a member of the South Carolina House of Representatives since 1977.

"Support for The Arts is good business: each public dollar invested in The Arts multiplies by a factor of five."

The full membership of NCSL not only adopted our recommendations, but created a new standing committee for arts and tourism, as well.

Many studies validate our findings, citing millions of dollars generated by arts institutions in Baltimore, Massachusetts, New York, and New Jersey. We have our own dramatic figures that confirm the economic impact of the Spoleto Arts Festival on Charleston and South Carolina. In 1982, Spoleto and tourist-related expenditures grossed $35 million. This generated $1 million in sales tax for the state and 600 new jobs, which, in turn, produced more state revenues in the form of income tax — a pretty good exchange for the state's contribution of $140,000 to Spoleto.

Not only is Spoleto a thriving industry in its own right, but it also promotes other economic growth. "Cultural tourism" is a growing phenomenon, and Charleston is reaping the benefits. Tourism in Charleston has increased by a rate twice that of the rest of the state. The national and international press that cover Spoleto also write companion stories about the charms of Charleston. New hotels and inns, new restaurants, and new crafts and art shops have sprung up, bringing new jobs and new tax revenues for the state. Downtown has been revitalized. Historic preservation, also nourished by public funds, is a handmaiden of the cultural activities that are restoring Charleston and other cities.

The Arts attract new industry. Priorities for relocating industry are changing. Although taxes, transportation, and labor are still important, equally important have become the "quality of life" factors — cultural activities, education, and the environment. The Arts can be the cutting edge in the escalating competition among states for new industry.

The Arts even improve our balance of trade. The American film and television industries return to our country each year more than $1 billion in surplus dollars in trade. This is one product even the Japanese are unable to replicate! The magic that comes out of the talent of artists who create and tell stories on film is the most wanted United States export for people in 120 countries.

Mass Appeal

There are some who say The Arts are elitist. Gian Carlo Menotti, founder of Spoleto, disputes this. He reminds us that from the moment we wake up until the time we go to bed, our lives are touched by artists — in the design of the clothes we wear and the cars we drive, and in the outer and interior designs of our homes and offices. These are the work of commercial artists, many of whom have been nurtured, inspired, and influenced by the fine arts.

When the time comes for legislators to vote on funding for The Arts, an overriding concern is the will of their constituents. The good news for The Arts, according to recent polls, is that the people are willing.

Would you be willing to pay $5 or more tax money to fund The Arts? Yes (70 percent). Should state government assist arts organizations? Yes (60 percent). Should school children be exposed to arts and cultural events? Yes (93 percent). Do you perceive The Arts as a positive experience in a troubled world? Yes (75 percent).

All of the above may explain why the South Carolina Ways and Means Committee agreed, so quickly and so quietly, to contribute to Spoleto, and why the House and Senate followed their lead. The time is ripe for a coordinated effort by the South Carolina State Development Board; Parks, Recreation and Tourism; Educational Television; and other state agencies under the umbrella of the Governor's Task Force on The Arts to parlay this legislative support. By shining the spotlight on the splendid cultural activities in the state, we can increase tourism, attract new industries, and bring about a cultural environment that will be the envy of all. □

Making the Group Executive Productive

The majority of the country's largest corporations use a group executive concept today. But it's not always easy to recruit and keep an effective group executive. Here are some suggestions for doing just that.

Carlton P. McNamara

Executives have become increasingly challenged to design a more effective organizational approach to managing a growing number of operating units. The typical response has been to add a new layer of senior management.

Whether the position of Group Executive or Group Vice President is discussed in a company's executive office, business literature, or management conferences, there seems to be general agreement concerning its need in the highly diversified corporation. (A Group Executive can be defined as an individual who has the responsibility of supervising the operations of similar or related units on behalf of the corporation.) More than 70 percent of the largest corporations in United States industry presently use a group concept.

The importance of having an effective group executive is obvious. This individual often is directly accountable for the financial performance of 5-10 operating companies, and responsible for helping fashion the appropriate strategies to meet future changes and challenges in the business environment.

But — consider two important realities. There is major frustration and disillusionment among many of the

incumbents who hold this position, and reassessment by the organizational planners who originally conceived and recommended this design. Furthermore, at a time in their careers when group executives should be (and want to be) highly effective, some are finding they are not being very productive.

In reviewing some previously published material, I came across an article in the September 25, 1978, issue of *Business Week* called "The Frustrations of the Group Executive," which offered some rather biting commentary concerning the state of the group executives.

> The situation very rarely makes for contentment or security. Although very few group heads are willing to talk on the record about their job dissatisfaction, many who have quit such positions eagerly describe the problems caused by the job's vagueness and the almost schizoid nature of their corporate images.

At first blush, this strong indictment of the Group Executive fraternity may seem a bit harsh and overdrawn. However, based on personal research and professional exposure, the evidence is not exactly reassuring. A 1978 survey by Robert H. Hayes & Associates of Chicago of the 500 largest corporations in American industry concluded that approximately 65 percent of the group executives working in these companies are very concerned about their ineffectiveness in the group position.

Key Obstacles

Why has this organizational design encountered turbulent weather in so many companies? And what are some of the obstacles to better understanding the key influences on the Group Executive's job which significantly impact his productivity? The Group Executive's low place on the effectiveness scale can usually be explained by a combination of four factors: role misconceptions, faulty job design, a human dimension, and an incompatible management system.

Nursemaid or Policeman

First, the Group Executive typically has a role that is either nebulous or not accepted and supported by the two interfaces directly impacting his performance — the chief operating officer and the Presidents of his operating companies. Specifically, what *is* his role: passive bean counter or active manager? What is expected of him: general cognizance or specific accountability for overall operating performance?

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When there is confusion concerning both role and performance expectations, the Group Executive usually operates in an environment characterized by a mixture of finger pointing, escape clause management, bypassing of normal channels, and excessive company politics.

The Impossible Dream

Second, in designing this management position, some organizational planners created the ultimate nightmare for a future occupant: substantial responsibility with very little authority. As one Group Executive explained, "I am held accountable for the financial performance of my five operating companies, but am frequently reminded by my corporate office to use velvet gloves management." This disadvantage is supposedly counter-balanced by his thoughtful chief operating officer who counsels, "Of course, when there are problems, we want you to jump in with both feet and work them out."

One can only envision a leading sports participant being advised to restrain his expertise until he is clearly behind in the contest, then to snatch victory from defeat in a last minute charge. This philosophy of job design clearly violates the proven successful track record of a preventive medicine style of management.

Executive Personality

A third factor is the human dimension. It is widely accepted that an executive in top management experiences a challenging obstacle course during his vocational journey to higher management. The odyssey from functional manager and divisional President to Group Executive is usually fraught with intense competition, high stress, and substantial personal sacrifice. A natural result is that executives understandably possess a significant degree of confidence in their ability. Given this byproduct of executive job progression, the newly promoted or recruited executive may frequently be asked to manage a cadre of operating Presidents who previously reported to the chief operating officer (and who still want to) and who also believe that they should have received the promotion. Although the passage of time frequently solves these "people problems," sometimes they remain and clearly to the detriment of both the Group Executive's and his operating management's effectiveness.

Lip Service

In the introduction of this new position, some companies paid lip service to the reality of promoting a key operating executive to a group head and the need for them to function with a different organizational structure and appropriate management system.

Even the most operations-minded Group Executive grudgingly acknowledges it is counterproductive, if not virtually impossible, to become actively involved in the day to day decision making process of his operating companies. An obvious exception is when there are serious problems in one or more of these companies.

> "There is major frustration and disillusionment among many of the incumbents who hold this position."

However, a major attraction of the group position for most executives is the anticipation of helping to shape future corporate policy and strategy, solving critical problems, spearheading major turnaround situations, and influencing potential mergers and acquisitions. When these challenges and activities either do not materialize or the Group Executive is restricted from active participation in them, the negative impact on his overall job satisfaction and productivity can be significant.

Because few business problems have ever been solved without first their natures, origins, and impacts being understood, management takes the initial step of reducing, if not removing, the major roadblocks to Group Executive productivity. Having done this, it is now necessary for them to address two key questions. Why have these obstacles not been removed? What is required to do the job?

The Paradox of Balance

Perhaps the most driving force, if not obsession, in the design and implementation of the group management structure is the concern with finding that illusive middle ground where operating Presidents have the required autonomy to do their job, and the Group Executive is still allowed to utilize fully his capabilities. One of the most fundamental causes of an ineffective Group Executive is this unrealistic and unfounded concern with balance. Specifically, what does it buy in terms of the group management concept?

First, why is the group job and its relationship with several operating Presidents or General Managers so different from the other managerial dyads in the usual organizational hierarchy? One cannot remember any time-consuming and painstaking efforts at reconciling the balance between, say, the Director-Manager, or Vice President-Director, or President-Executive/Senior Vice President. A fundamental mistake is to assume that this position should have been imbued with some totally different or unknown managerial properties.

Second, some companies reveal an overzealous concern with not ruffling the feathers of their operating management's independence. As a Group Executive explained, "Because the operating President is the key guy in our company,

we choose to err on the side of his freedom instead of his control." There is little doubt that the hard driving, results-oriented President of an operating company prefers to be left alone to do his job — "sink or swim on my own decisions and performance." Any concerted effort by a Group Executive to overly influence operating decisions and then hold the divisional President accountable for the results clearly would violate a basic management axiom.

However, if attempts to maintain established structures and processes to satisfy the interests of well-entrenched operating managements with personal stakes in the status quo are successful, the Group Executive is doomed, at best, to isolated and limited success. It would appear for some companies that the sacred autonomy of their operating managements and an obsession with finding a utopian balance (that can never, and does not, exist) have become ends that dysfunctionally compete with the fundamental management control of the overall corporation.

A Blueprint for Action

The central need is not to treat the Group Executive job differently from existing managerial positions and thus compromise proven, accepted, and sound organizational principles. The central need is to allow the Group Executive to be born, to function, and to manage with the same ground rules as his other managerial brethren.

Our discussion of the preceding obstacles and their negative impact on Group Executive productivity largely suggests some practical solutions for making the Group Executive a more effective force in a company's overall management system.

Verify the Need

First, the initial requirement is the careful and accurate assessment of the need for a group management structure. Where there is not a sound business rationale, most chief operating officers will hesitate to delegate the necessary authority and responsibility because they believe (and rightfully so) the corporate office can still effectively manage and control the existing operating units. Teledyne, Inc., a highly successful and diversified corporation with more than 120 operating companies, provides a classic example of a real need for a strong group structure (and one does exist). My consulting experience with large corporations has produced three major guidelines that are used to validate the existence of a group management concept. They include span of control (number of actual operating companies), financial impact (respective sizes of the units), and diversity (extent of different and unrelated businesses).

Define a Realistic Charter

Second, if a company covets for this position the high achievers with a proven operating track record and potential as chief executive/operating officers, the job and candidate profiles must be compatible. The specific role and position description cannot be that of an overpriced messenger between the corporate office and the operating units.

Although it is virtually impossible to find a job description of the Group Executive position, there are in actual practice three major areas of responsibility: long-range planning, short-term performance monitoring, and extraordinary problem solving. The futuristic portion relates to assisting results-oriented operating Presidents in the development of a vision and strategy for the next 5-10 years in terms of new markets, products, competitive response, and overall business environment. An ongoing task is the monitoring of operating performance. And the most energizing and challenging element of the Group Executive's job is to help solve serious problems when they surface in an operating company. As one group executive remarked, "My real productivity is directly related to the successful and timely resolution of the inevitable major showstoppers. All of my experience, judgment, and expertise is brought into play. If you tracked my time management profile, you would probably find 80-90 percent allocated to one or two operating companies with real problems and 10-20 percent spent with the 6 or 7 companies in a fairly steady state mode."

Anything less than these three major areas of job responsibility short changes the real contribution the high powered Group Executive can provide his corporation.

> "If the group executive is to be an effective player on the management team, he must be accorded a substantive voice and posture in the management process."

Provide Appropriate Incentives

Third, in promoting or recruiting an executive for a group position, some companies have concluded that more money and a prestigious title (corporate officer) are the major attractions for operating executives. A recent survey of more than 3,000 senior executives in 750 large corporations, however, revealed that increased responsibility and challenge are the two primary elements that motivate an executive to seek a higher position.

If the Group Executive's role and charter are limited, the choice of a proven doer who is used to his own show will clearly be a poor selection. Conversely, the matching of an

executive who is comfortable with a counselor, director, or coach type of role will be equally out of place when the charter includes specific accountability for group performance. There must be in statistical terms a "goodness of fit" between the position description and the candidate profile.

A second important match is between the Group Executive and the portfolio of companies assigned to him. Practical experience has shown that the two most important considerations are the Group Executive's profile (background, expertise, and strengths) and the specific performance situation of the actual operating units.

A Supportive Management System

Fourth, if the Group Executive is to be an effective player on the management team, he must be accorded a substantive voice and posture in the management process. For example, in a strategic business planning environment the Group Executive wears his "corporate hat" in reviewing and submitting the business plans prepared by his operating companies. He is the key voice in presenting to the corporate office a sound business rationale for insuring that his companies receive the appropriate resources to fulfill successfully their strategic charter — whether it be a high growth commitment, a selective earnings posture, or a divest-retrenchment situation.

There should also not be any fuzziness about the organizational reporting relationships. It is the same hard line from the division or operating company President to the Group Executives as exists between the first line supervisor and his manager. The Presidents of the operating companies report to the Group Executive and not to the chief operating officer.

In terms of the Group Executive's position in the overall management control system, practical experience underscores the futility of trying to legislate a particular management style. While the interaction of the executive's own personality, actual business situation, and company environment tend to influence the managerial style of most Group Executives, some executives are clearly more comfortable delegating most tasks, while others will always be hands-on operators. However, actual case studies do suggest that if a Group Executive is held directly accountable for the financial performance of his operating companies, a more hands-on approach is the most effective control technique in a high-pressure-for-performance-results-oriented environment. Sole reliance on monthly "flash reports" (numbers oriented) and detailed quarterly financial reports (formal monthly presentations concerning objectives, results, variances, explanations, and corrective action plans) without direct personal contact can provide a very distorted and inaccurate picture of operational health.

An Injection of Discipline

Fifth, the organizational glue that either holds the just described management system and previous recommendations together or creates an exceedingly difficult and politicized work environment for the Group Executive is the tone established by the Chief Executive Officer. What kind of managerial environment does he want? To what extent will he go to enforce that culture?

Although it is inevitable that relationships between the Group Executive and his divisional Presidents, executive peer groups, and the corporate office will be strained and politicized periodically, the potential breakage can be minimized. The CEO can help these critical interfaces be generally supportive and constructive, and not riddled with petty jealousies or personal insecurities, by his example, positive direction, and, when necessary, personal intervention. Excessive corporate politics, bypassing the Group Executive, and the absence of "psychological strokes" for job performance are not inevitable. Because they are primarily humanly engineered they are also subject to some degree of individual control. It is the CEO's responsibility to create the same managerial environment for his group executive team that exists for all other company executives and managers.

Facing the Crossroads Reality

Even if the preceding five areas are successfully addressed, the Group Executive inevitably passes through a job life cycle. Incumbents begin to experience the same complacency and restlessness as any other position holder who believes his effectiveness is being diminished by a repetition of old situations and a paucity of new challenges. As one Group Executive remarked, "There comes that moment when you realize you have learned at least 80 percent of the job, when you begin to solve the same problems over again, and when you start wishing for some new mountains to climb. It's happened in every job I've had."

In explaining why his football teams didn't pass very much, Darryl Royal, the past and successful coach of the University of Texas, once remarked, "Three things can happen, and two are bad. It can be caught, dropped, or intercepted." For the still ambitious but restless or frustrated Group Executive, the situation is similar. He can remain in the same position or hope to be promoted (both bad) or leave the company for a better opportunity.

It is important to acknowledge that both the company and the executive can exert some constructive effort in solving this problem. The development and maintenance of a well-conceived corporate manpower planning system can hopefully anticipate and plan for some of these inevitable career crossroads situations. But, in the end, the Group Executive with a proven track record and confidence in his ability must ultimately decide what is best and most productive for him. □

BUSINESS & ECONOMIC REVIEW

Business Forum

Change

Cynthia Gilliam

I cried all day long in the backyard pear tree the September day they removed the old wood stove from its smoky corner in our kitchen at 41 South Mountain Street in Union, S.C. Installed in its stead was a new gas range in blinding, white enamel with six eyes of blue flame.

I could not be comforted. Without any consultation with me, they were changing the scenery in the most familiar room of my childhood. What had appeared to be fixed and unchanging had kaleidoscoped into bright, unknown, threatening, new patterns.

Only those who have lived with a wood cookstove can comprehend its bounty. There was a side unit on ours within easy reach of my six years. All the leftovers from breakfast and lunch were stored there to keep them warm. Cloverleaf yeast rolls, crisp slab bacon, country fried steak or chicken. Fabulous fast finger food for after school.

Winter mornings, blue with cold, I'd dress in the kitchen by the stove where my clothes had been laid out to warm. I dried my socks and hair ribbons there — and my doll clothes. Its heat blasted us out of the house in the summertime, to eat on the porch, where night flyers bounced against the screens.

"The Day They Took Away the Wood Stove" will be a chapter heading in my autobiography. In it, I will offer all I can recall about that day of loss, to set the stage for a series of serious essays on the lessons I learned in my first encounter with wrenching change.

Every member of my family assumed that I needed only the *negative* information on the new gas stove simply because I was a child. "Never, never touch it!" was the first command. Followed by, "It's dangerous for little girls. Hear that hissing noise? That means the gas is escaping and it will poison you! Only grown-ups can light the oven or it might blow up the house!" As all this took place during World War II, I had a vivid picture of "blowing up" and was willing to do my part to avoid it.

No one bothered with the *positive* benefits of the new stove in the kitchen. All they gave me were compelling reasons to fear and avoid it. This day from my childhood could have made me the world's most resistant customer to new gas ranges, or sparking the opposite reaction, an aggressive promoter. I am happy to report that the latter reaction was achieved. As a grown-up advertising woman, I am currently playing my part in the successful marketing of gas ranges and other gas appliances in the South Carolina Upcountry, not too many miles from my old pear tree.

The Value of Change

The value of change is balanced somewhere between an identified need and a perceived ability to fulfill that need. The ability to command change is the imperative of leadership — in a person, in a company, in a market. Face it: even preserving the status quo requires change and adjustment somewhere within the individual or the organization. But so is the preception required to identify the need for change . . . and the diplomacy necessary to create an environment where positive change can occur . . . followed by the persistent patience to keep the change in place . . . and the confidence to accommodate all the little, unanticipated, gadfly adjustments germinated by any big change.

Those tears shed in the pear tree in 1944 have crystallized into a clearer understanding of all the feelings contained in all resistance to any change. Resistance occurs with equal power in the minds of those who effect change and those most affected. Such resistance exists because change, of any kind, is uncomfortable, even when it is for an acknowledged improvement. Change implies adjustment, and involvement at a different level.

Move a piece of furniture in an office, and you change its map instantly. Add a new employee to a small, close-knit staff and observe the alterations in emotional content and territorial imperatives. Introduce a new procedure and watch it fail or succeed depending entirely on how the primary users feel about it. Up the charges on the office soft drink machine and spark a rebellion among top management.

To face change is to face difference — to stare "the great unknown" down until you have explored all it has to offer *you:* immediately, short term, and over the long haul. What threats does it pose, and what promises does it proffer?

As a middle-aged woman managing other women and men on my agency staff, I am able to observe, firsthand, their varying reactions to change. When confronted with change, it appears to me that women ask, "What will happen to me?" while men ask, "What is in it

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for me?" For women, the value of change is often obscured by perceived threats to individual relationships, while men seem to welcome it with a sense of high adventure, providing the level of their participation is insured.

Team Approach

This personal observation also leads me to conclude that if you have a big, tough job to get done, or a complex change you want effected, then assign the project to a team consisting of a middle-aged woman and a young man. They will work together in trust and mutual respect, because neither seems to perceive the other as a threat. In my years of experience, neither has ever allowed the other to fail.

So often what we most need to know in order to adapt successfully to change is glossed over with *traditions, assumptions, and incomplete information.* This condition occurs often enough in a company's *external communications* program with its customers and in the *internal* flow of *information* to its employees as well.

Change is here to stay. To be comfortable and successful with change, I suggest that we learn to anticipate it, use it, and manage it. Drawing upon my experience with the gas stove those many years ago, my suggestions for dealing successfully with change could be summarized as follows.

The Way to Change

1. No change can be implemented successfully without a period of planned orientation and persuasion.

2. Old habits, predicated on assumptions deep in the subconscious mind, are the hardest obstacles to overcome in successfully effecting change.

3. As resistance to change is often not founded on logic, it is not logical to assume that a logical approach will be successful in overcoming that resistance.

4. The smallest, most insignificant members of an organization, in innocent ignorance, can sabotage the best new ideas and plans through resistance to change.

5. It is possible to identify that primary point of resistance and overcome it. □

BUSINESS & ECONOMIC REVIEW

Point of Sale Terminals—The New Wave?

Douglas K. Freeman

For years, we have heard about the coming of the "cashless society," where plastic cards will replace checks and cash as the way we pay for goods and services. A decade ago, we learned of pilot projects called POS (Point of Sale) that will usher in this cashless society by electronically debiting the consumer's account for purchase, and crediting the merchant's account at the checkout line. But — that was 10 years ago, and, after many false starts, we still have no more viable POS systems than we had in 1974.

Now, however, many industry analysts are beginning to "beat the drums" of POS again. And — it is this author's opinion that enough changes have been made in the payment system infrastructure for POS to be ushered in over the next few years.

What are these changes that make us bankers believe that Point of Sale has a better probability of success today than it did 10 years ago? The trends below appear to be assisting POS in becoming a modern day Phoenix.

- A pressing need by banks and retailers to drive down operating costs.
- The formation of shared electronic funds transfer systems (financial switches).
- The decreasing cost/performance curves of electronics.
- Growing consumer acceptance of electronic payment systems.
- Perception by both banks and retailers of the value of market segmentation.

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Drive Down Operating Costs

The financial and retail marketplace today is, indeed, very competitive. In the financial arena, banks have been caught in a profit squeeze as deregulation takes hold. The spread between the cost of funds and the rate invested funds can earn is shrinking rapidly, forcing financial institutions to concentrate on increasing noninterest income and decreasing operating expenses if they are to maintain historical earnings levels. At the same time, with most retailers operating within very thin margins, it would be attractive to build a payment system that will speed up merchant lines and lower costs.

In recent studies of the South Carolina Point of Sale market, 63 percent of the merchants said that a reduction in overall payment system cost must be a necessary benefit of POS. Mobil Oil Corporation said it justified an automated payment system test in the Washington area solely on the basis of reducing its proprietary credit card processing cost. Randall's Food Markets of Houston computed it could save $1 million a year in its 24 stores, because of reduction in time spent accepting payments.

The common need of banks and retailers to drive down operating costs makes POS more attractive to both parties. These perceived mutual benefits have indeed changed the rules from 10 years ago.

Financial Switches

About a year ago, most major banks in South Carolina came together to form a financial switch, which operates under the trade name "Relay." Initially, this switch allowed sharing of Automated Teller Machines (ATMs), so that bank A's customers could use bank B's ATMs, and vice versa. The bigger picture, however, is Point of Sale. These major banks believed that for Point of Sale to become a reality, an electronic clearing house was needed to allow the electronic routing of transactions between banks.

The Relay switch has been tremendously successful, and it's estimated that by year end 1984, approximately 80 percent of all consumers who carry ATM cards (Debit Cards) in South Carolina will be able to use Relay ATMs. This *also* means that 80 percent of debit card holders could use a common POS system.

In recent surveys, South Carolina merchants have shown that they have a sincere desire to service all of their customers with one Point of Sale system. The 80 percent penetration of the South Carolina marketplace by Relay is well within the constraints outlined by those merchants.

Technology Costs Decline

The fact that IBM currently offers a relatively inexpensive desk top PC 370 that five years ago would have required a main frame computer costing many times more, is indicative of the decreasing cost performance curves in electronics we have all been witnessing over the past 10 years. This kind of technological innovation is beginning to appear also in such products as service station EFT (electronic funds transfer) gas pumps, EFT devices in hotel lobbies for automated registration and check in, automated "handshakes" between electronic cash registers in grocery stores and banks, and ATMs in grocery stores. While technology is not free, the cost of this technology does continue to decline while its usefulness continues to rise.

This leads many industry experts to believe that POS would be financially attractive.

Consumer Acceptance

Point of Sale systems built for financial institutions or retailers will never fly if *consumers* do not accept and use them. So one of the greatest challenges facing POS systems is determining what segments of the consuming public will likely be their regular users.

There is little evidence to suggest that South Carolina consumers have difficulty using a wide range of payment options, from cash to credit cards. Nevertheless, shoppers within the South Carolina marketplace do clearly perceive distinct advantages and disadvantages in the current payment system. They appear to associate convenience with both its advantages and disadvantages. Because of this, therefore, any Point of Sale system that can offer added convenience to the consumer will also add value.

Merchants, coincidentally, regard customer service as a major area of concern. The most frequent merchant complaint gathered from recent surveys dealt with the time and difficulty associated with the checkout process. Among consumers surveyed, 67 percent also view checkout efficiency as being important. Electronic services (such as POS) that have a direct impact on accelerating and simplifying the checkout process, therefore, would definitely appeal to both the consumer and the merchant.

Value of Market Segmentation

As John Naisbitt tells us in *Megatrends,* our society is becoming a Baskin-Robbins affair where everything comes in at least 31 flavors. A critical task for the financial and retail industries, then, is to segment markets. Businesses can no longer afford to try to be all things to all people.

Point of Sale systems will allow such segmentation. Information gathered by the retailer and the financial institution by POS systems will make it possible for markets to segment in terms of taste, convenience, price, etc. And this, in turn, will permit a more tailored approach to customer satisfaction.

Over the next few months, both financial institutions and retailers will become more aware of Point of Sale through increased press coverage. Pilot projects are springing up throughout the nation in an attempt to test some hypotheses concerning costs and benefits. In the South Carolina marketplace, retailers and financial institutions need to begin discussions that will bring about Point of Sale systems that provide value added services to the financial institution, the merchant, and the consumer. Recent studies show there *can be* mutual benefits for *all three* parties from an intelligently designed, efficient, and well-marketed POS program.

The industry gurus who predicted in 1974 that Point of Sale systems would usher in the cashless society really were not wrong. They were just ahead of their time. After all, didn't we also hear in 1974 that the Detroit Tigers would be leading the American League . . . □

BUSINESS & ECONOMIC REVIEW

Tax Strategies for the '80's

New Risks: Tax Law Changes

James Edmunds Wilson

Tax laws have been changing ever since the enactment of the first Internal Revenue Code, but during the past decade, six major alterations have taken place. This has brought into clear focus the difficulty of making multiyear decisions when the projected tax impact is so uncertain. In fact, Congress made clear when passing the 1984 tax act that additional revisions would likely be forthcoming in 1985.

All of this has served to shorten dramatically the time frame investors and businesses take into consideration when making financial decisions. Needless to say, they serve as real disincentives to long-term investment. The Deficit Reduction Act of 1984, the third major piece of tax legislation since 1980, takes the form of a nearly 800-page document affecting literally hundreds of individual tax provisions and creating an estimated $50 billion worth of new tax revenues. It also contains a great deal of give and take. On one hand, it incorporates changes believed to be positive for investors, such as shortening the long-term capital gains holding period from 12 to 6 months. No doubt, this was a provision designed to stimulate capital investment on the part of individual investors. However, Congress created this particular change to revert back to the previous 12-month holding period effective September 30, 1988!

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Loans Abolished

One of the 1984 tax act's far-reaching changes is the virtual abolishment of interest free or below market loans heretofore utilized primarily as intra-family income shifting devices. Earlier this year the Supreme Court settled part of this issue by attaching gift tax consequences to these interest-free loans (that is, the parent would be deemed to have made a gift to the child in an amount equal to the imputed interest earnings on loan principal). The Deficit Reduction Act of 1984 created income tax consequences to the lender (parent) that removed any real benefit or tax savings from this once popular planning tool. Although there are several exceptions contained within the bill, in general the issue is now fairly firmly settled and destined to extinction. Granted, these intrafamily interest free loans have always been fraught with uncertainties, but in less than a six-month period, the climate has changed from relatively positive to absolutely negative in terms of the gift and its income tax consequences to both lender and borrower.

Recent tax acts also have included provisions scheduled to go into effect on future dates. An example of this is the net interest exclusion (created in the 1981 tax act) which was scheduled to go into effect January 1, 1985, but was repealed in the 1984 tax act — setting the stage for a somewhat difficult environment in which to plan.

In 1984, the IRS issued regulations allowing deductions for contributions to IRAs even if the contributions were made after the tax returns were filed, as long as they were made prior to the filing deadline *including* the extensions. Again, a short-lived provision, since the 1984 tax act changed this so that contributions must be made within the period for filing a return *without extensions.*

So now as we wrestle with deciphering and interpreting the most recent tax changes, we must simultaneously seek to predict what changes will be forthcoming in the reasonably near future. For instance, if you and I invested in an apartment building we felt contained substantial economic value in 1984, what effect would a flat rate tax system or some other major tax change have on our investment when we wanted to resell the project? A difficult question to answer, but nevertheless an important planning aspect of investing. The added tax risk associated with the lack of continuity or predictability within the tax structure takes away from value just as any investment risk would. Viewed from another perspective, the additional tax risk demands a greater incremental return on invested capital and, therefore, does, in fact, impact very definitely on the overall investment decision making process.

No Cure-All

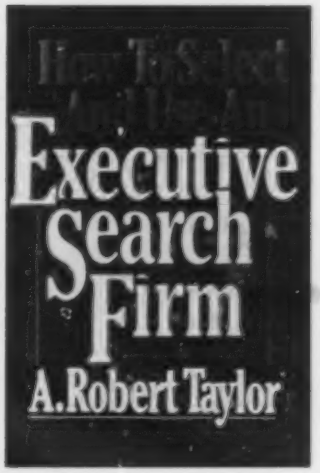
Although there is no cure-all solution for the current rate of tax changes, individual and business investors must be equipped to cope within the determined structure. Ignoring the possibility or probability of future tax changes will not reduce potential problems to any degree. A cognizant realization of tax trends and alternative analysis based on differing tax pictures should be a standard part of any serious review for sophisticated investors today. Just as we analyze liquidity, volatility, and other variables, we must also reduce the risk of additional tax change to a quantitative formula. With major tax changes coming at the rate of approximately one per year, we must quickly

reach the point of forgetting about the past (when we operated within a much more stable tax structure) and recognizing, instead, that as long as the federal government seeks additional revenues, the tax code likely will continue to change.

Many individual and business investors do not realize that this also places a tremendous burden on tax planning practitioners since the Internal Revenue Service regulations — promulgated to interpret the changes passed by Congress — are, in many cases, running nearly three years behind the law changes themselves. This creates an ever growing gray area where practitioners and clients alike must determine the probable state of regulations when they do become available and their potential impact on any existing or pending investment and financial decisions.

Be Prepared

The astute investor should be prepared to find areas of opportunity and benefit, as long as he or she incorporates a realistic purview of potential tax changes within his or her financial decision making process. Without question, the process of tax planning has become a year-round effort. Axiomatically, as the planning environment continues to grow in complexity, prospects for simplifying tremendously the tax maze are being debated seriously. Familiarizing yourself with the Kemp-Kasten and Bradley-Gephardt bills now pending before Congress could well prove beneficial to multiyear investment decisions. □



How to Select and Use an Executive Search Firm

By A. Robert Taylor
McGraw-Hill Book Company, 1984, $24.95

The reviewer, **Jean A. Stebinger,** is President of Nationwide Recruiters, Inc. and of Nationwide Medical Recruiters Franchise Corporation. She has been in the professional recruiting industry for 10 years, primarily in the medical field.

When management runs a corporation like a club, it is likely to hire like an admissions committee. Who does a prospective employee know? Where did he go to school? How will he fit in the group? But, when the breath of competition becomes hot enough, forget the school, forget the friends; find somebody who can turn a division around — somebody, say, with a proven record in a similar industry.

On the other side of the hiring equation, when an executive reaches a certain level, he or she becomes unlikely to read employment ads. For, even though an executive may not be completely happy where he is, or may find his upward moves blocked by the Chief Executive's son-in-law (or daughter-in-law), he is not likely to go so far as to apply somewhere else, since that sort of thing is very hard to keep secret. How, then, *does* he or she draw attention to his or her talents?

Hidden out there somewhere is the right person and the right job: the question is how to get them together. Thus, the executive search industry was born. Virtually unheard of in the 1950's, it is now a large enterprise in the United States, and has spread to all the developed countries of the world.

A. Robert Taylor, author of *How to Select and Use an Executive Search Firm* and founder of one of the largest worldwide executive search companies, has had more than 30 years' experience in the industry. In his book, he uses his expertise to provide practical, useful guidance on the subject of professional executive search. He explores all aspects of filling an executive vacancy, and takes the reader through the process, step by step. And — there are a lot more steps than you might think, most of which, he warns, can be ignored only at your peril!

Though Taylor's discussion, and the many, many examples he uses as illustrations, tend to focus primarily on the top levels of management, he does note that the methods he lays out in much detail are important in filling *any* key position for which there appears to be no one available within the organization.

Summarized chapter headings that give an idea of the thoroughness with which Taylor examines his subject are discussed below.

"OK, So We Have to Go Outside"

The decision to go to a professional search firm is the first tough one, since most companies find it difficult to admit their usual methods may be lacking. Nevertheless, when trying to fill a key position, the realization of how costly a mistake could be; the special skills needed to conduct a thorough search; the importance of an unbiased, independent third party; and, sometimes, the need to keep the search confidential so the person being replaced and/or the competition do not know; dictate the decision to go to a search firm, Taylor says.

"Selecting an Executive Search Firm"

How does a company hire a public accountant, lawyer, or any other type of management search firm? The company must ask questions about professional reputation, experience in the industry, etc. One interesting caution, however, is that a company might *not* want a search firm with too many clients in their industry. After all, Taylor warns, the firm might be reluctant to search in a previous client's organization.

"Before the Search Begins"

Alas, you can't just hire the firm and forget the search until three or four shiny new candidates appear on your doorstep. A close partnership has to be developed, and, above all, there have to be clear specifications, says Taylor. To do the job, a search firm must know the objectives of your company, how well they are being achieved, and exactly why the position is open. You must be frank with the firm about your company (well, nobody's perfect), about executives already considered, and about compensation of the new person. A written position description must result.

"During the Search"

A close working partnership needs to be maintained between the search firm and the client company throughout the search period — which, according to Taylor, should last about six weeks. This phase includes the research; the systematic contacting of people knowledgeable about executives in the industry, function, and geographic areas that

are your targets; approaching and screening possible candidates; interviewing; and checking references. This requires a well-organized, intensive effort, and some changes are bound to be made in your specifications as the work progresses.

"Assessing Candidates"

Taylor maintains there is more art than science in the process of assessing candidates. "When assessing an executive candidate, we are trying to predict his behavior and his performance in an environment that is new and different to him. The methods . . . available for measuring the situation and environment are not precise nor is there a common denominator." This means that the data collected need to be extremely thorough. They should include education; personal information about the candidate and his or her family; detailed knowledge of work experience including companies worked for, and their organization and structures; the candidate's relationship to, and functions, responsibilities, authority, and attained results in, these companies; numerous and varied references; and anything else that might show the actual reasons for the successes he has achieved. The search firm needs to get the perceptions of the people who worked with him, for him, and over him.

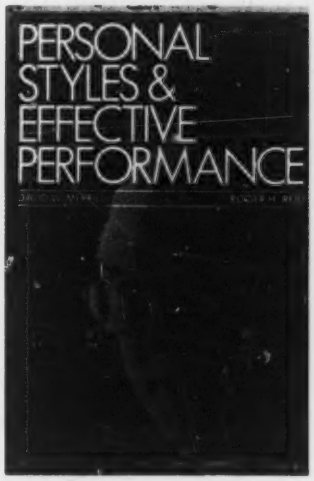
"The Interviewing and Selection of Candidates"

Now, says Taylor, comes the company's job. Hundreds of hours have been spent and funds invested to enable the company to begin interviewing the two or three candidates developed as a result of all the previous steps. But all of the good work done so far, warns Taylor, can be totally undone if the company mismanages interviewing and selection, and loses the outstanding candidates. A major problem is delay. When a candidate's interest in the open position has been brought to the point where he is willing to consider an offer, time is of the essence. Another hazard is poor handling of the interviewing process, since most executives have had no training, and only sporadic experience, in interviewing. Here, says Taylor, the search consultant can help move things along, keep the company informed of the candidate's reactions, help with the structure of an offer, and give advice at crucial moments during the negotiations.

These and other chapters carry the reader through the final selection, after which there are sections on "Separating the Selected Executive From His Present Organization" and "The Search Firm's Role After the Executive Has Joined Your Organization" which outline the useful role of the search firm all the way to successful integration into the new company.

While all this may sound useful to potential employers, how about that other large portion of the business community — potential *candidates?* They, too, are encouraged to read Taylor's book, which includes two enticing chapters titled "Guide for Executives Who Are Approached as a Prospective Candidate by an Executive Search Firm" and "Guide for the Executive Who Has Decided to Find a Position With Another Organization."

In sum, *How to Select and Use an Executive Search Firm* is an easily read book, useful for anyone charged with helping to fill — or hoping to find — a key vacancy, be it in business or some other type of organization. There's a lot of good practical advice on interviewing, and a realistic point of view on the difficulties in finding the best candidates. All in all, it's a worthwhile book to read *before* you start searching for those people or jobs that are hardest to find — the good ones. □



Personal Styles and Effective Performance: Make Your Style Work for You

By David W. Merrill and Roger H. Reid
Chilton Book Company, 1981, $9.95

The reviewer, **Susie H. VanHuss,** is a member of the Management Faculty of The University of South Carolina's College of Business Administration. The author of three office administration textbooks, she has presented seminars in the areas of women in management, motivation, supervisory and management development, office management, and business communications in 28 states and Puerto Rico.

Over the last decade, an approach called Style Awareness Training has been used extensively with managers and sales representatives to improve communications and interpersonal effectiveness. Now, business people who have heard about the popular style awareness workshops conducted by David W. Merrill and Roger H. Reid, partners in the TRACOM Corporation that specializes in human resource development, don't necessarily have to attend those sessions. They can read Merrill's and Reid's book on the subject, instead.

Personal Styles and Effective Performance: Make Your Style Work for

You has one basic message: all people exhibit patterns of behavior that can be identified and responded to. The key to achieving satisfactory relationships, the authors argue, lies in the ability to recognize, and adju to, these behavior patterns. (The definition of behavior used by Merrill and Reid is limited, however, to those social actions that can be observed and reported by others.)

The authors identify three dimensions of behavior: assertiveness, responsiveness, and versatility. Assertiveness is the aspect of behavior that measures whether a person tends to tell or ask, and the degree to which that person is viewed as trying to influence the decisions of others. Responsiveness is the dimension of behavior that indicates whether a person tends to emote or to control feelings, and the extent to which he or she openly displays feelings or emotions in social situations. Versatility indicates the extent to which others view an individual as being adaptable, resourceful, and competent; it is behavior that earns social endorsement.

The book is based on the belief that two dimensions of behavior — assertiveness and responsiveness — can be observed in every individual, and that supervisors need to understand which dimensions best describe their respective employees. To aid in that understanding, the authors have developed four social styles of behavior, using a scale of less assertiveness to more assertiveness as one dimension, and less responsiveness to more responsiveness as the other dimension.

The four styles are driving behavior, expressive behavior, amiable behavior, and analytical behavior.

Driving behavior describes individuals who tell, rather than ask, but who "control" their feelings. They are assertive, serious people who do not display emotions readily. They are action-oriented.

Expressive individuals are assertive, but they also tend to make their feelings public. They are willing to display both positive and negative emotions. They are intuition-oriented.

Amiable behavior is displayed by individuals who express their feelings openly, but who are not very assertive. Amiable individuals tend to focus on being agreeable and cooperative. They are relationship-oriented.

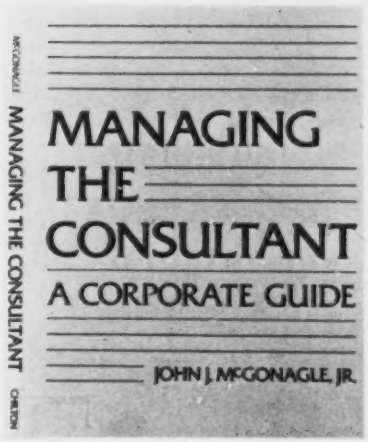
The analytical style is low in assertiveness, but high in control of emotions. The analytical individual will ask questions, gather facts, and study data seriously. The stereotype is that of the thinker.

The authors view assertiveness and responsiveness as constants, but versatility as the dynamic dimension that represents how others view a person's ability to adapt to those around him or her. Versatility, according to the authors, is a skill that can be learned. It consists of the ability to listen well, the ability to handle confrontation, and the ability to resolve conflict.

While Merrill and Reid do provide an interesting approach to viewing interpersonal communications, it is a limited one. Social style is dealt with in isolation from other personality aspects. The final chapter does recognize this shortcoming, and attempts to deal with the subject in a more realistic and complex setting.

Personal Styles and Effective Performance is appropriate reading for supervisors who want to learn more about their employees' communication styles. It is more descriptive than prescriptive, however; while it helps supervisors to *understand* the different styles of communication, it does not delve deeply enough into *how to deal* with the various styles employees may exhibit.

The major shortcoming of this book is that it views behavior only as observed by others, and only from the perspective of style. Nevertheless, it is good reading for those who wish to gain a better understanding of interpersonal communication. □



Managing the Consultant: A Corporate Guide

By John J. McGonagle, Jr.
Chilton Book Company, 1981,
$23.50

The reviewer, **J. Carl Clamp,** is Distinguished Lecturer in Management in the College of Business Administration at The University of South Carolina. Formerly President and a Director of United States Filter Corp., where he held the full profit and loss responsibility for that company's worldwide operations, he also has held corporate executive positions at International Telephone & Telegraph Corp., Allis-Chalmers Corp., and General Mills, Inc.

In recent years the bookshelves of corporate managers have been jammed with a plethora of "how to" books, most of whose authors promise in their prefaces to guide the managers in the day to day conduct of virtually every aspect of a business operation. Many executives can, and do, benefit from a personalized use of well-designed and comprehensive handbooks that live up to their authors' promises. Unfortunately, there are far too many books that will disappoint and even mislead. In the opinion of this reviewer, John McGonagle has not produced "a corporate guide" in his *Managing the Consultant: A Corporate Guide.*

The use of outside consultants in industry is widespread. The control and management of consultants is a troublesome and too often unanticipated problem for the organizations using them. There *is* a need for a guide to managing these relationships — but this book is not it.

Managing the Consultant is a little book of 206 pages. Stripped of its lengthy 72-page Appendix, however, it offers even less — only 134 pages. But does the reader *get* 134 pages of usable information?

The author — a lawyer — provides, first, a "basic reference" that defines consulting and clarifies the client/consultant relationship, principally from a *legal perspective.* He quite properly notes that "as the consultant is a non-traditional creative of the *law,* extreme care must be taken from both a *legal* and a management point of view to provide that the relationship is clearly established, maintained, and terminated." Accordingly, a major portion of this short volume is devoted to an examination of the roles that corporate policies, agreements, and contracts play in directing the relationship; and a review of the *legal* issues involved in such instruments and their related endeavors. The final chapter, "When Things Go Wrong," anticipates that disputes may arise, negotiations can break down, and charges of breach of contract by either party may be brought. Remedies under general contract law and specifically the provision of liquidated damages clauses and arbitration proceedings are carefully reviewed. Note the emphasis on the *law* and *legal* issues.

McGonagle states that "the contract ought to be the key element in creating and controlling the relationship." To this end, he has included sample letters of agreement and master contract forms that may be used by the managers as models, or possibly "ready-made contracts." This reviewer acknowledges that a written agreement is a vital necessity in protecting the client corporation's interests, but the implication that a lay manager or executive could execute such an agreement *without his own legal review* is at best foolhardy and could jeopardize the corporation's interests. As a "basic reference," then, this book may better serve the manager's lawyer rather than the manager himself.

Managing the Consultant is also presented as a "management handbook." It quite appropriately supplies frameworks that would assist the manager in determining whether he needs a consultant and, if so, how the task of the consultant could be defined. Suggestions on finding a consultant are then made in a separate Chapter Two, the major portion of which is devoted to a review of organizations of consultants, rather than an identification of the constituent consultant companies themselves. It is quite beyond the realm of probability that any association of consultants could recommend to a corporation the choice of any one member firm without incurring the wrath of every other dues paying member. At best — as the author acknowledges — a membership list may be obtained, and not all of the associations "will respond to your precise concerns." It is at this point that this reviewer questions the "how to" promise of this book.

The book's dust jacket states that the author "includes proven guidelines for budgeting" consulting services. Much to the dismay of the reader, however, the text states that, "Due to the confidentiality of corporate budgeting procedures, the only models available are those of the government." The author then reviews the practices of the U.S. Department of Health and Human Services in dealing with the acquisition and management of consulting services through the *government's* procurement system, including "attempts to deal with budgeting for consulting services" through the bureaucratic maze of the department, the Congressional Appropriations Committee, and Congressional budget estimates. McGonagle concludes that such material "provides a model for management because it raises the fundamental issues that management must address." Based on this reviewer's experience, however, any attempt to pattern corporate budgeting procedures

on United States government practices would lead to corporate suicide!

Of far more serious concern are the statements "that many corporations do not consciously budget for consulting services but rather take consultant services out of personnel, overhead, or miscellaneous budget categories"; "managers . . . transfer funds relatively freely from one category to another"; and "consulting services . . . are covered by the ability of management to reach into other funds . . ." Such presumptions of budgeting for consulting services violate the very principles of sound management and common sense McGonagle insists must accompany the use of consultants! Certainly there are many instances of contingencies suggesting the use of consultants not contemplated at the time of budget preparation, but to suggest that managers ignore the possibility of the related expenditures and freely transfer funds from one account to another implies nothing less than sloppy management and loss of control.

Finally, there is a discussion of how consulting fees are determined. As the author phrases it, "It may be a revelation for the company to learn how . . . fees are determined." Well and good, but rather than present the fee basis that management consultants in general employ, the book provides in detail a case study on how an outside *law firm* bills its clients. It has been the experience of this reviewer that any competent and ethical management consulting firm willingly and freely presents in detail to a potential client the basis for all billings, be they personal services or out-of-pocket expenditures. The manager seeking guidance in managing the consultant would welcome such information, rather than the obvious parochial practices of law firms.

More than one-third of this slim volume is devoted to an Appendix, almost one-half of which is comprised of extracts from publicly-available United States government publications. The relevance of such source material to the effective management of consultants by profit-oriented managers is certainly open to question. Other portions of the Appendix are identical repeats of specific items in the text of the book. Such pages only add length, not substance, to the book.

Managing the Consultant can be disappointing and downright misleading as a corporate guide for the control and utilization of consulting services. It contains an abundance of corporate law as it relates to the consulting relationship, but little guidance for the executive who must interface with consultants in resolving his corporation's problems. □

BUSINESS & ECONOMIC REVIEW

Books Briefly

Compiled by Dwight Gardner, Business Librarian, College of Business Administration, The University of South Carolina.

M-Form Society: How American Teamwork Can Recapture the Competitive Edge

By William Ouchi
Addison-Wesley, 1984, $19.95

The author of the best seller *Theory Z* once again turns to Japan for economic inspiration. "M-Form" refers to multi-divisional corporations in which cooperation between the divisions is necessary for the company as a whole to succeed. Ouchi observes that teamwork in action in Japan, where competing companies are able to agree on industry-wide strategies and where the government cooperates, achieves spectacular success. American business should learn from this example, says Ouchi, by striving for greater cooperation between companies, by forming more effective trade associations, and by fostering a positive relationship between government and business.

Management Support Systems

By Harry Katzan
Van Nostrand Reinhold, 1984, $21.95

This text provides an excellent introduction to computer-based information support systems. While aiming its message at the practicing manager, it succeeds in avoiding highly technical jargon. Its emphasis is on the need to tailor the computer system to meet the organization's unique informational needs and management style. Sources of additional information are listed at the end of each chapter for further study.

The Money Bazaars: Understanding the Banking Revolution Around Us

By Martin Mayer
Truman Talley, 1984, $22.50

In his earlier work, *The Bankers,* Martin Mayer warned of the coming crisis in American banking. In this latest offering, he declares that banks are dead, and says their place in the economy has been filled by financial services institutions whose ultimate role is still uncertain. Contributing factors to the debanking of the financial system, the author argues, were the blurring between money and credit, corporations bypassing banks in their search for funds, technological innovations such as electronic payment systems and computerized record keeping, and foreign loans. Drawing on his intimate knowledge of the banking industry, Mayer provides extensive background information in support of his conclusions.

Economic Games People Play

By Shlomo Maital and Sharone Maital
Basic Books, 1984, $16.95

The authors, an economist and a psychologist, have combined their respective disciplines to achieve a fresh perspective on the Dismal Science. Utilizing game analogies to explain economics in terms the average reader will find both informative and entertaining, they examine such diverse phenomena as competition, corporate take-overs, and inflation — all in terms of economic games with titles such as "Let's You and Him Fight," "Rotten Kid," and "Zeno and the Inflation Turtle." Leading economists are also cited to provide more orthodox support for the authors' theories.

The Coming Computer Industry Shake-Out: Winners, Losers, and Survivors

By Stephen McClellan
John Wiley and Sons, 1984, $19.95

This study argues that the ever increasing innovation within the computer industry, along with customer demand for more compatible, integrated systems, means that only those companies that are highly adaptable and responsive to shifts in the marketplace will prosper. Potential investors within this industry must take a hard look at the company's management team, its track record, and its products and services to see if it has anything unique to offer. Since IBM is the dominant force within the industry, the author recommends avoiding companies in direct competition with IBM in the mainframe market, and companies whose products in the personal computer market are not compatible with IBM. Interviews with chief executive officers of 40 leading computer firms also are included.

Reaganomics: Meaning, Means, and Ends

By John Kenneth Galbraith and Paul McCracken
Free Press, 1984, $12.95

In this study of the economic policies of the current administration, two leading economists analyze the President's programs and draw different conclusions. McCracken seems favorably impressed with the administration's handling of the nation's current economic problems, such as bringing inflation under control. Galbraith, on the other hand, finds major faults with Reagan's economic programs, especially their long-term consequences for economic stability and growth. □

BUSINESS AFFILIATES

The Business Affiliates program of The USC-Business Partnership Foundation was chartered in 1977 and is designed to attract business investment and participation in the programs of the College of Business Administration. Advantageous to both, this program benefits the business community through better prepared graduates and higher levels of professionalism of employees who participate in the graduate or continuing education programs, and the college through a sense of relevancy and realism from corporate and business involvement.

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J. Stanley Fryer,
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